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Architectural Tradition in New Orleans

By N. C. Curtis and William P. Spratling

Illustrated with drawings and photographs by the authors

I

THE PERIOD from 1840 to 1860 witnessed the rising tide of prosperity in ante-bellum New Orleans. It was the period which saw the decline of the old quarter—the city of the Creoles—and the correspondingly rapid rise of the new American municipality above Canal Street. A gradual business stagnation overspread the marts of the Vieux Carré, soon the vaults of the old St. Louis hotel ceased to respond to the voice of the "double-tongued French-English auctioneer," and the transfer of commercial activity was complete. But if the Americans were the leading factors, merchants and traders, the chief capitalist was still the Creole. Easily the most conspicuous and readily recalled, certainly the most picturesque figure of that time, was the Louisiana sugar planter. Living in this day of concentrated endeavor and economical establishments, it is hard for us to realize the scope of his operations and the extravagance of his daily life. Considering the amplitude of his domain and the potentialities of his occupation for producing wealth and influencing trade, it is certain that he had no counterpart elsewhere in the United States in his day; nor, taking into account the relative value of the dollar, do we find his match in this age, even among the captains of industry in a wealth-inflated nation.

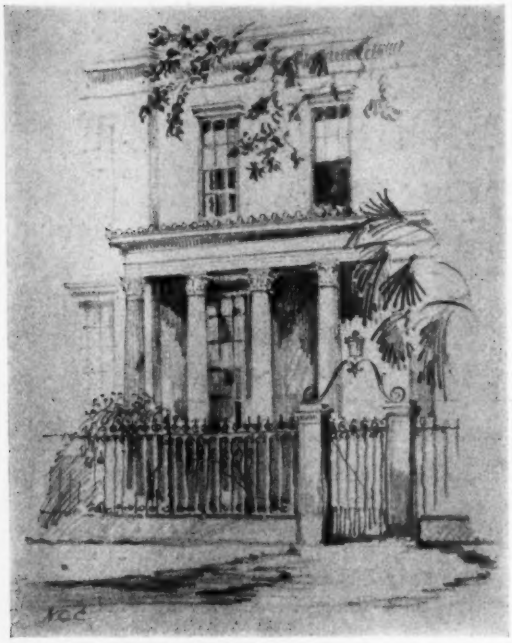
Cable draws an engaging picture of this man in his prime, "whose brow and cheek were darkened by outdoor exposure, but they were not weather-beaten. His shapely, bronzed hand was no harder or rougher than was due to the use of the bridle-rein and the gunstock. His eye was the eye of a steed; his neck—the same. His hair was a little luxuriant. His speech was positive, his manner was military, his sentiments were antique, his clothing was of broadcloth, his boots were neat, and his hat was soft, broad, and slouched a little to show its fineness. Such in his best aspect was the Mississippi River planter. When sugar was his crop and Creole French his native tongue, his polish would sometimes be finer still, with a finish got in Paris, and his hotel would be the St. Louis."

The city was the *entrepôt* for all commerce. From 1850 to 1860 the value of its trade comprised in exports, imports and domestic receipts rose from one hundred to over three hundred million dollars a year—a large increase and a large sum. Thus money was plentiful and building activity the result and the rule.

The historian records this as the period "when the American idea of architecture had passed from its untrained innocence to a sophomoric affection of Greek forms," remarking that "it was not a time to look for very good taste." But this was the same period which produced the brownstone fronts, jig-saw villas and castellated abortions of the states along the north Atlantic seaboard. Perhaps the taste of the time was not so bad—let the architectural commentator be the judge.

The "plantation house" was the country abode of the Louisiana planter—a stately domicile befitting his wealth and position. In this instance a most interesting type of architecture was produced, truly representative of the conditions of its environment, but our special interest at this time is not with the country house of the planter—rather with his city house, with the houses of his wealthy friends and relatives—of whom we may be sure he had many.

The city houses of New Orleans of this period present characteristics of sufficient distinction to place them in a group by themselves, but it is not the intention of this present writer to seek to assign them a place in the history of American architecture—others may do this. It does not appear, however, that any

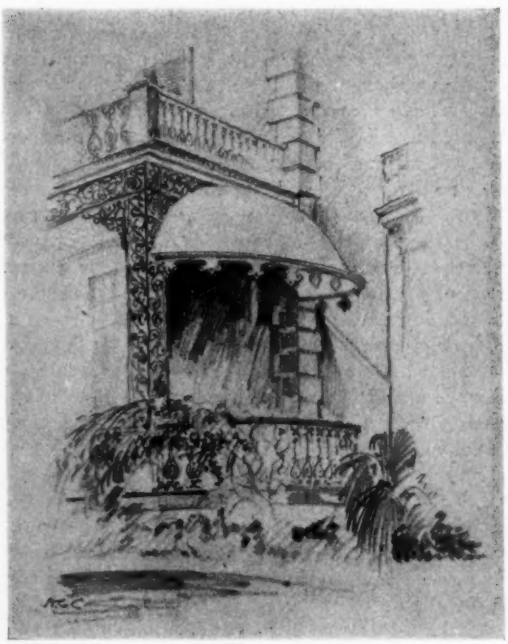


THE INFLUENCE OF GREEK ARCHITECTURE
As evidenced in this street façade of a Prytania Street house

work of architecture may be historically important except for two reasons. Either the individual characteristics of that architecture must be sufficiently important to mark an independent style, or else these characteristics must present a well-defined phase in the development of the architecture of the region. It is the latter consideration with which the writer is chiefly concerned, for it must be realized that the responsibility rests with the architects of this city and of this day to show, if they can, how that development may be continued in modern work—to draw inspiration from it and to make use of its best features. Then may the traditional architecture of the region become historically important. Furthermore, if it can be shown that its characteristics were derived from those agencies which produce architecture at any time and place, namely: climate, available materials and methods of construction, the taste of the day and the amenities of social life, together with the comfort, beauty, charm and individual distinction resulting therefrom, it can also be shown that that same architecture may serve to characterize a later civilization identically situated. And this conclusion is especially true for this city of New Orleans—a city of ancient customs and mode of life slowly changing if at all, semi-tropical in climate and almost as insular as Venice, a city of canals and dikes, flat as the top of a billiard table and accustomed to the expanse of water broadly extended or in sinuous penetrations, always cosmopolitan in population, a people living much out-of-doors, pleasure-loving to a sensible degree, addicted to the philosophy of getting the most out of life as it passes, but solving problems as they arise and dreaming of what the future may be and not omitting to plan for it.

The first and chief factor determining the architecture of New Orleans houses was climate—the search for well-being was the paramount consideration. While the earlier architects made many intelligent decisions respecting climate which still retain their force, the architects of this day have made still further adaptations, thus increasing the measure of comfort and health. The climate of the region is mild and humid. The weather-chart will show a seasonal average of nine months of temperate weather and three months of cool weather. About sixty inches of rainfall throughout the year, not uniformly distributed but occurring largely in the spring and summer, periods of sudden and intermittent showers of copious volume. The prevailing breezes are from a southerly direction.

Conditions of topography, combined with surface-water or generally water-soaked soil have, up to recent times, influenced very strongly the manner of building. These conditions rendered the sinking of cellars below the g de level a practical impossibility. In order to overc me them in a measure the type of domestic archi-



A BALCONY
Executed in cast iron and copper, from a Coliseum Street residence

tecture locally known as the "raised cottage"—or house—was invented: a most interesting type, indigenous to Louisiana, suited to the climate and relatively comfortable in a high degree. Mention of its peculiarities is made here merely in passing, although it is of a class *sui generis* of which many examples may be found scattered throughout the city which have come down from plantation days. The type has had a widespread influence over small house building in this region. The plan consists ordinarily of a single story comprising all the necessary living rooms, raised eight or ten feet above the ground; the space under the house is paved throughout, and either left open or utilized as a basement for the accommodation of laundry, servants' rooms and heating arrangements. In this connection it should be noted that improved drainage has now lowered the level of the water in the soil several feet and this fact, combined with skill in waterproofing concrete, has made sunken basements possible and they are now the rule rather than the exception in all houses of any importance.

The type of house which this article is concerned with was generally two stories high, without a basement—the first floor raised some three or four feet above the ground. As a class they were large in size and represented the highest expression in domestic architecture that the wealth and talent of the day were capable of producing. The plan was commonly

A Garden Façade

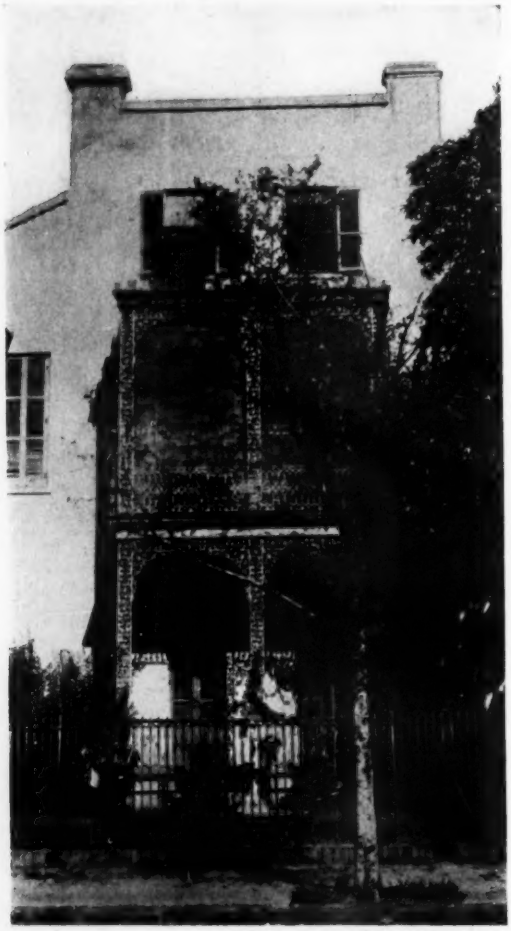
From a corner house on Prytania and Fourth Streets

A Typical Gable End

Executed in the prevailing style from a house on Fourth Street

in the shape of an L, the principal mass of the house rising higher than the extension toward the rear which formed the service wing. They were planned with the main entrance either centrally placed or toward the side of the front, depending on the width of property frontage.

Without going into a tedious explanation of room-arrangement, it may be stated that the interiors were simply composed, stately and elegant in effect and often of monumental proportions. Ceilings were high, frequently sixteen or eighteen feet on the first floor. Staircases were nearly always given prominence, usually composed in two flights sweeping up in a graceful curve, although they were rarely set into a semicircular space. Mahogany was the preferred wood for hand-rails and balusters, which sometimes terminated in a polished brass newel of the baluster type. The best examples are quite simple in detail, with round hand-rails and turned balusters either delicately tapered or moulded. Step ends were frequently treated with the S-scroll after the manner of the American colonial staircases. A feature of most plans was the large oblong drawing-room, locally called a "double parlour" on account of a suggested separation into two rooms by an arch or sliding doors. The treatment of these two parts was identical, each having its own mantel of black or white Italian marble. Great care was bestowed on the balanced spacing of openings which



HOUSE ON CORNER OF JACKSON AVENUE AND PRYTANIA STREET, SHOWING CHARACTERISTIC GABLE END TREATMENT

extended from the floor nearly to the ceiling. Windows were treated like doors, with an *allège* after the French manner, thus enhancing the dignity and architectural propriety of the interior. No use was made of wood-panelling, except for an occasional dado of chair-rail height. Walls and ceilings were of smooth plaster and a plaster cornice invariably formed the transition between the two; floors were of pine, highly polished and black as ebony.

A glance into the interior of one of these rooms—furnished in keeping with its style, as many of them still are—gives at once the impression of an elegant and distinguished social life, truly reflecting the spirit of the New Orleans of its day and time. Long mirrors, set in gilded ormolu mounts, formed part of the architectural setting, and gave back the myriad lights and reflections of crystal chandeliers. The mantel-ornaments were in keeping with their marble pedestals. Among these would be found the French clock of marble and bronze set in its arched glass case—often a notable work of art, a collaboration of the *horloger* and *sculpteur* rather than of the cabinet-maker. This graced the centre of the mantel, while the end ornaments were in keeping, either part of the clock-set or the decorative *lustre* or quaint *cylindre*. Furniture was of mahogany or rosewood made in New Orleans or imported from France; most of it partook of the character of the Louis XV style, although the elegant style of Louis XVI was also to be found and the affected classicalism of the Empire period was not wanting. Furniture making still thrives in New Orleans where handwork and old stocks are the rule. The factories are operated in connection with the "antique emporiums" along Royal Street, the craftsmanship is excellent and the product sold along with stores of "real antiques" apparently inexhaustible.

From this brief description it will readily be inferred that the French character predominated and was preferred, and if this be true—as it is—it is in direct contradiction to the oft-repeated assertion that Spanish architecture is in keeping with the New Orleans tradition.

While the writer feels that he can react as favorably as anyone toward the admirable domestic architecture of Southern California, developed there from prototypes always associated with that region—Mission architecture and the architecture of Spain and Mexico with which the illustrated journals have made us so familiar of late—he does not feel that the studied crudities of these developments are in keeping with New Orleans or the Gulf coast. Nor is it reasonable to expect an architecture developed in an arid environment to be easily rendered adaptable to conditions wholly reverse, except through modifications really damaging to its character. With no thought of discrediting any interpretation, is this not actually and inevitably the case? How much authentic Spanish character is there in the so-called Spanish house as we see it in New Orleans in this day, with its wide spreading eaves and numerous and large openings? To be sure it has a tile roof and stucco walls and some rather free ornaments around the entrance, but of the real Spanish character what is there? Is not that character absent because it cannot be present?

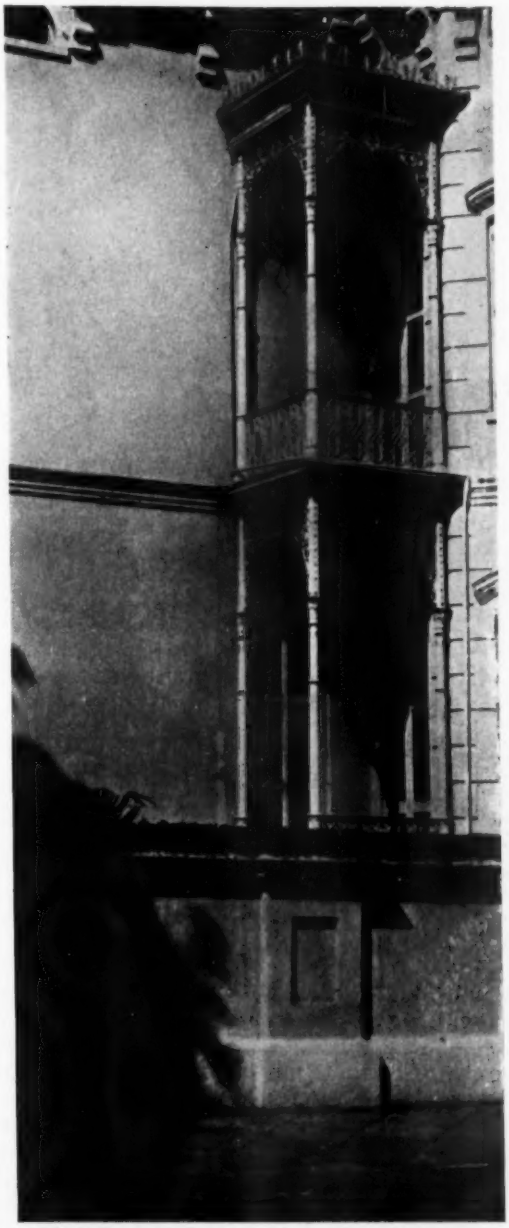
This writer does not presume to set himself up as the spokesman and interpreter of the composite New Orleans character in architecture, but he holds consistently to the opinion that our designers of domestic architecture have not yet fully availed themselves of the sources from which they may derive the most genuine inspiration. It is true that the city was once under Spanish domination, but the Spaniards left little impress upon the architecture of the city or region and that little has almost wholly disappeared. On

the other hand, for domestic architecture at least, the dominating influence was and has always been French. No one can doubt this to be true for the residential architecture of the city. The earliest religious edifice in the Mississippi Valley, the domicile of the Ursuline nuns on Charles Street, is a distinctly French building of the period of Louis XV. The interesting court-yard houses of the old quarter are all French in character. The type of grand mansion with which this article deals is French in spirit. At least this is true for interiors. As for their exteriors, the writer hopes to demonstrate that the character evidenced is a purely local development.

It is a trite remark that the most conspicuous feature of the architecture of this period is the ironwork. But this is literally true, and true to the extent that in the majority of cases the ironwork is the architecture. The reader can easily visualize the effect of a perfectly uniform wall-surface of smooth stucco, punctured with few openings, its sole distinguishing feature a balcony or covered "gallery" in cast iron of exceedingly rich and decorative design. This wall, if it is the side wall of the house, rises from base to parapet unbroken by conspicuous horizontal band or cornice. The silhouette of the upper, raking edges of the wall, marking the gable end of the roof, is interrupted by the two chimneys serving the fireplaces of the drawing room. The arrangement is one of perfect symmetry and taken as a whole becomes the most striking characteristic of the architecture. When we think of the houses of this period at their best we think of this simple and effective composition.

It will be remembered that these houses belong to the period of the Greek Revival, hence the Greek orders were employed—though sparingly. But the Grecian style is quite uniformly reflected in the profiles of mouldings and often in the design of the ornamental ironwork. Such was the exuberance of fancy manifested in the latter, however, that motives from every style and period were borrowed and used to enrich the metal framework irrespective of the prevailing Greek feeling in the more structural elements. The orders, when they were employed, were generally used in connection with doorways, and occasionally as a formal portico on the front of the house. In such cases the proportions and details were carefully studied and exceedingly correct. The carving of members was nearly always done in wood, that is cypress, and it appears that stone or marble were rarely employed except for steps and flagging.

Contrary to the general belief, there is comparatively little wrought iron in New Orleans, and none in the period we are considering. Such beautiful wrought iron balconies as are occasionally discovered in the French quarter were the product of an earlier period (the period of Jean Lafitte, if it is to be believed that he was the leading smith as well as pirate of his time, the early part of the 19th century). The word "discovered" is used advisedly because even lovers of this section, who have habituated themselves through many years to the search for new detail, frequently run across



WHERE MARKED CONTRAST IN SCALE WAS SOUGHT—Effectively obtained as in this example by placing balconies of delicate lace-like ironwork against broad surfaces of unbroken masonry.

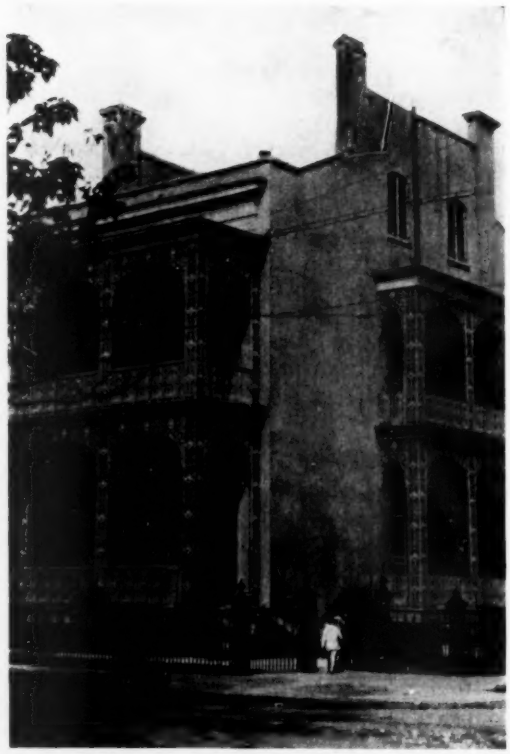
ON THIRD STREET NEAR COLISEUM STREET

new combinations that they did not know existed. There is a seemingly inexhaustible treasure trove in the way of interesting detail to be found in the Old Quarter. But if wrought iron is scarce there is on the other hand a great deal of cast-iron work of the period before 1840 and it is evident that this art began to flourish very early in the Century.

Ornamental cast-iron work exists in abundance and in an astonishing diversity of forms and details.[1] It would be an interesting study to search out and determine how and why New Orleans, remote from sources of supply, came to be the centre of the design and manufacture of this material; also the reason for its preference and how such surprising skill in the art was developed. Probably the durability and permanence of the material, in an atmosphere where wood is often quickly destroyed through rot or the attacks of termites, had something to do with it. The casuistical critic can find little fault with the modelling which was suited to the material, and the designers seemed never at a loss for a motive or a new and original combination of forms. It is worth remarking that the ornamentation was in all cases included in the casting of the structural parts, the whole structure thus fitting together into a consistent design, light and delicate, though highly ornate in appearance. Observers liken the effect to lace—an apt comparison.

New Orleans had several well-known foundries, among which are remembered the Leeds Iron Works and the Shakespeare Iron Works, whose business was the fabrication of the heavy and complicated machinery used in sugar-making, and which were also known to be highly skilled in the fashioning of ornamental cast-iron. That the designers employed by these concerns were competent there is abundant evidence and no doubt they employed the most highly skilled craftsmen in wood and metal to be found in France. The Civil War ended all this; the foundries became busied in the manufacture of war supplies and in the general turmoil and ruin which came thereafter all stores of patterns were lost or destroyed. Now it is only possible to reproduce a panel of ornament by using the iron itself as a pattern.

New Orleans was, and still is, to a lesser degree, a city of iron fences. Around parks and public places these fences partook of monumental proportions. Especially along Esplanade Avenue and in the "Old Garden District," where Jackson Avenue and Prytania



CORNER OF CAMP AND JOSEPHINE STREETS

This house is one of the most perfect examples of the type.

[1] See an article on *The Decorative Iron Work of New Orleans* in the JOURNAL for October, 1913, by S. S. Labouisse, A.I.A.

Street were the important thoroughfares, the localities where most of the mansions of which we write are to be found, highly ornate cast-iron fences varying in height from five to eight feet still stand in almost unbroken continuity. The impression thus produced is entirely in accord with the aristocratic character of the houses themselves. The conscious exclusiveness of this type of domicile with its setting has now generally given place to the more democratic residential-park idea in the newer sections, where lawns merge into one another and fences are absent.

Galleries, the principal decorative feature of the houses, were either one or two stories high. Occasionally we find a gallery at the second story level only, not very far projecting and resting on brackets, with a curved metal hood or roof, a most picturesque feature.

Brick was the material used in the walls of the most important of these houses, but in very few cases was the natural surface left exposed. Brick walls were either painted directly or after covering them with a coating of smooth plaster which was occasionally ruled off with thin joint lines. For some reason not apparent there was a universal and consistent distaste for the red color of brick. Perhaps experience had taught that the brick obtainable were apt to be porous,

ORLEANS ALLEY

hence liable to become damp and mouldy and easily discolored; or perhaps the preference for light tones was based on true artistic perception; in any case light bluish, creamy or greenish gray surfaces were the rule, seldom white, the general effect being harmonious and very restful to the eye. In fact it may be said that the feeling of repose and quietude so perceptible in the "Garden District" is largely due to the use of grayish and subdued tones in the architecture.

No description of the houses of this period would be complete without some reference to their setting—to the methods of garden design and planting then prevailing. The blocks of the district are about three

hundred feet square and usually subdivided into plots of ample size. The three main thoroughfares, Jackson and Washington Avenues and Prytania Street, are wide and, although cross streets are narrow, they are set well back so there is no effect of crowding. As this was before the days of concrete, it was the custom to use flagstones or brick for the paving of sidewalks, garden walks, driveways and other approaches. These flagstones are about three inches thick and eighteen square and are mostly of pink sandstone, though flags of yellow sandstone and slate were also used. It is a commentary on the improvement in taste that not many years ago when flagstones were removed in order to lay concrete they could hardly be given away for the hauling, whereas now they are in great demand and very expensive. To secure a natural drainage the level of the soil within the property lines was built up a foot or more above the general level and the filling held in place by a granite curbing which formed a base for the iron fences. There are many large trees in the section, principally liveoaks, magnolias, sycamores and hackberries. Of these the liveoak, on account of its size, unique beauty and evergreen qualities, was the most esteemed; but its presence brought at the same time almost insurmountable difficulties in gardening owing to the fact that nothing will grow in its shade.

There was little attempt at formal gardening and informal plantings of the typical flowering shrubs; small ornamental trees and bushes were preferred to flower gardens or beds of annuals. But the variety, luxuriance and heavy odors of the flowering shrubs and vines seemed to render the latter almost a superfluity. Oleanders, crêpe myrtles, pomegranates, the delicate and feathery parkinsonia, the sweet olive, altheas, the camphor tree whose spring foliage resembles a powdering of gold, were massed together or set in rows along fence-lines or *banquette*. A genuinely tropical accent was given by an occasional palm and by clumps of banana plants, whose graceful, drooping leaves contrast so well with the soaring stalks and plumes of bamboo and cane. This riot of color and foliage was completed by the exquisite delicacy of vines—the purple and yellow bignonia, the morning glory, clematis and moonvine, and the supreme rosa montana—all allowed to grow at will over trellis, gallery, fence and garden wall.

It must be admitted that in seeking to recover some of the familiar charm of the historic architecture of New Orleans, designers have, in a measure, neglected the architecture of this period; whereas in striving to transmute the characteristics of earlier periods, their efforts have met with success. But the fault is not altogether theirs. There is now a vogue for the picturesque, to which the formal stateliness of the houses of 1840 to 1860 does not readily lend itself. Moreover, owners themselves often have strong predilections in the matter of a style and cannot easily be dissuaded from their preferences even when manifestly erroneous and inconsistent. The writer has no particular quarrel with this point of view. A certain amount of variety of style, especially in domestic architecture, is both pleasing and interesting. Variety of this sort, however, should not be the rule, but the exception.

Omitting cottages, such regional domestic architecture of the day as is designed by architects is in every respect suited to the peculiarities of the climate, and comfortable, attractive homes are provided for their owners.

And, although styles are heterogeneous, it must be set down to the credit of the designers that they know how to avoid being too stylistic and generally adapt their designs to the existing conditions. Where they err is in not availing themselves in a greater measure of their heritage.

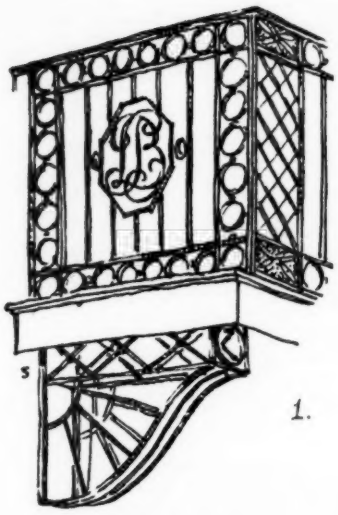
N. C. Curtis.

II

In New Orleans, the wrought iron work naturally stands as the most important decorative element and for several reasons—primarily because it reveals the instinct and craftsmanship of the one who hammered it and then because of its inherent quality of line—beautiful and sensitive. Much was accomplished with the casting of iron in moulds and its erection into galleries which often line whole blocks. But this has little or nothing in common with the art of the smith. Cast iron in New Orleans might be said to belong to the industrial era. Its manufacture is said to have begun only as early as 1846 or thereabouts. The city is full of it and there are a thousand different patterns. Many of the designs are negligible, although occasionally one runs across an exquisite piece, as for instance the "Love Bird" over a little alley gate in Royal Street.

In the Cabildo, the Spanish ironwork of New Orleans is to be seen at its best and in all its phases, from the early entrance gateway with its peculiar star design and interesting irregularities to the intricate and beautifully wrought balcony rails of the façade. A great deal of the contemporary ironwork of the city owes its Spanish character directly to the influence of this fine old building. Ten blocks below Esplanade on Royal Street we discovered a charming example in a circular balcony rail which was very evidently inspired by one from the St. Peter Street side of the Cabildo.

As the city increased in wealth and commercial importance it became common to have the family insignia, or more usually the monogram incorporated into the design of the second floor balcony rail. Numbers of these are to be found in the Royal Street section. The monograms alone, aside from their particularly inter-



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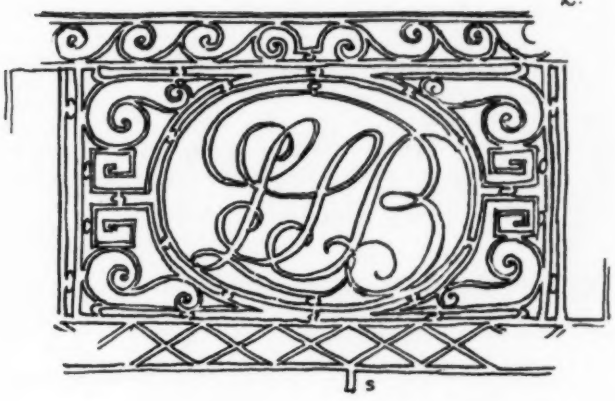

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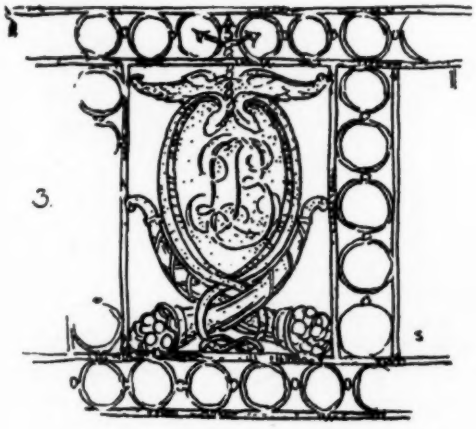

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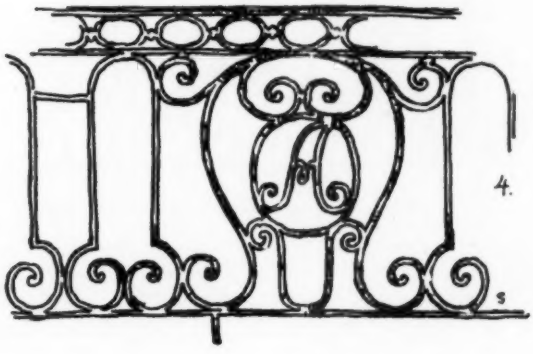

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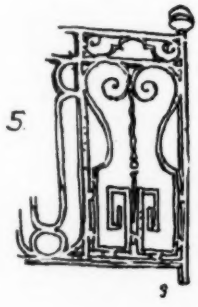

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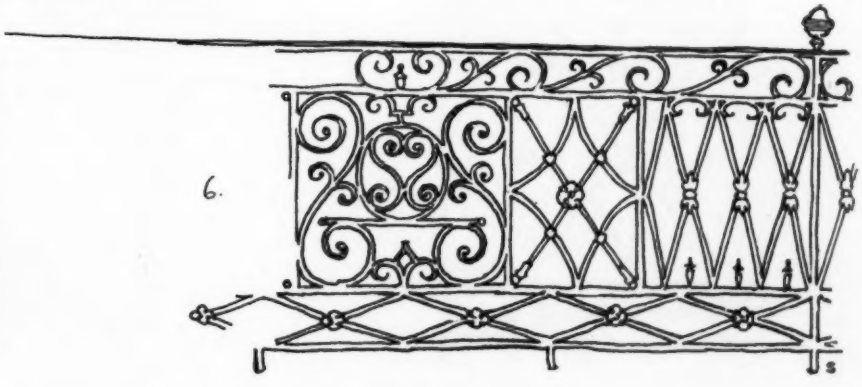

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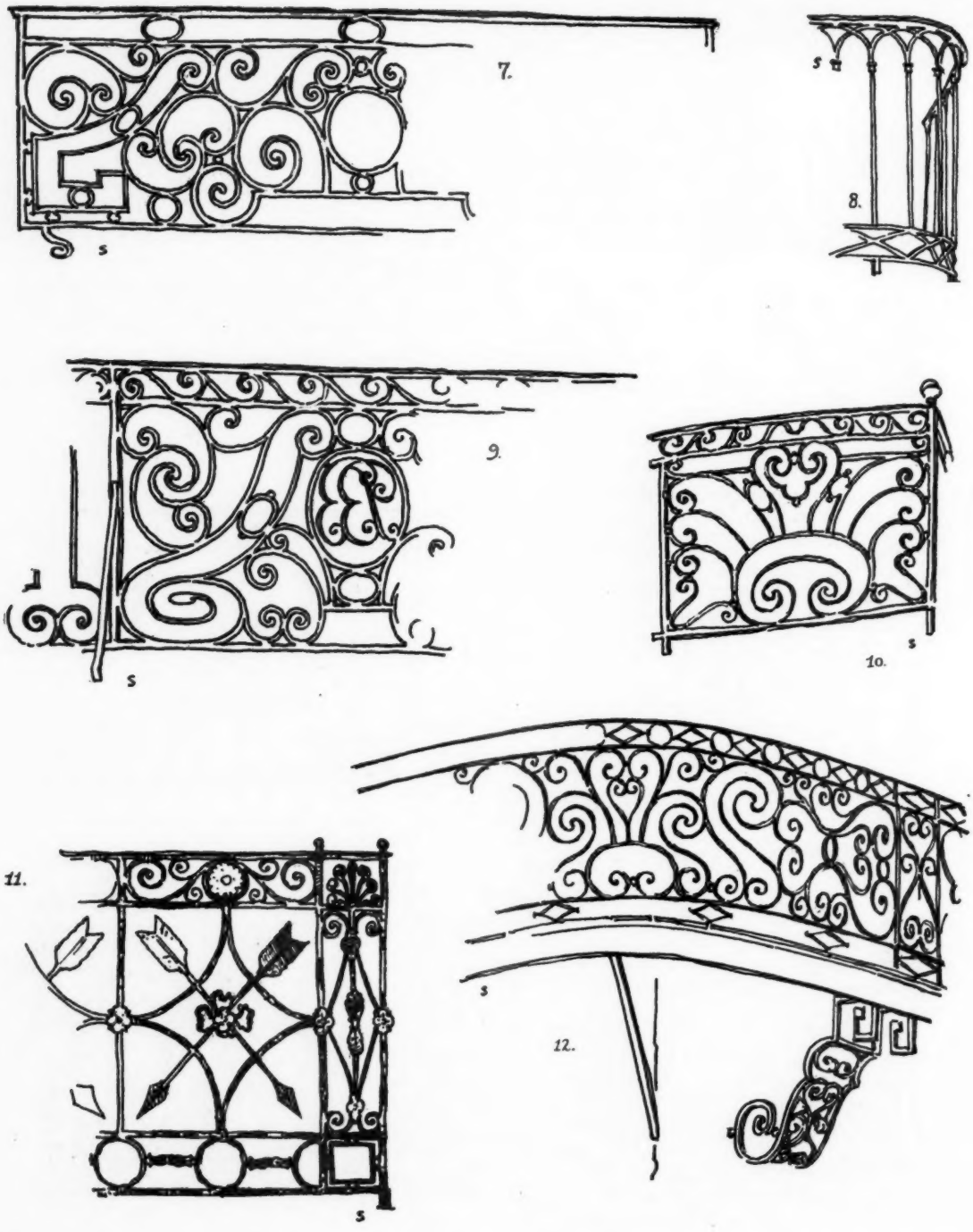
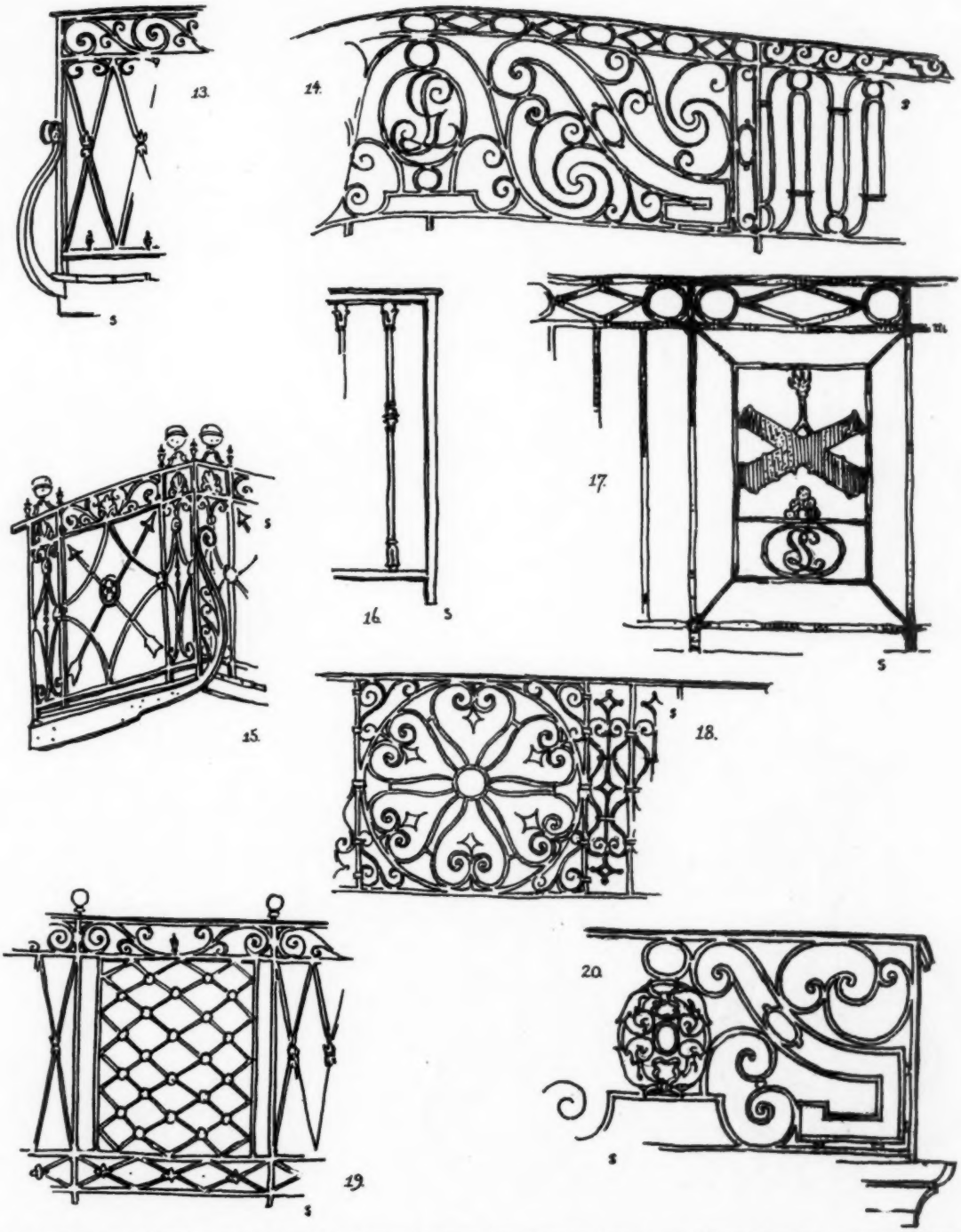
1.—Wrought side detail and bracket from Paul Morphy House balcony, Royal Street. 2.—Wrought monogram rail from antique dome, Royal Street. 3.—Wrought monogram rail (BL-Banque de la Louisiane) from Morphy House, Royal Street. 4.—Wrought monogram rail from No. 522 Chartres Street. 5.—Wrought corner monogram from lower Royal Street. 6.—Wrought rail with lead rosettes and brass knobs, from Ricot House, Royal Street.



7.—Wrought rail from first bay, St. Peter Street side of the Cabildo. 8.—Cast corner rail from Napoleon House, Chartres Street. 9.—Wrought monogram rail (BB) from No. 617 Chartres Street. 10.—Wrought corner monogram feature from lower Royal Street. 11.—Wrought iron rail of crossed darts, with lead rosettes and ribbon, from Roberts House, St. Peter Street. 12.—Wrought corner balcony feature from Conti and Royal Streets.



13.—Wrought reinforced corner of typical diagonal pattern from Bourbon Street. 14.—Wrought corner monogram feature from lower Royal Street. 15.—Wrought rail of crossed darts with large brass knobs, from St. Peter Street. 16.—Cast rail from Orleans Alley. 17.—Wrought cannon and monogram rail from Orleans Alley. 18.—Wrought rail from centre of façade of the Cabildo. 19.—Wrought and cast centre of rail from No. 610 Bourbon Street. 20.—Wrought rail from the Orleans Alley side of the Cabildo.

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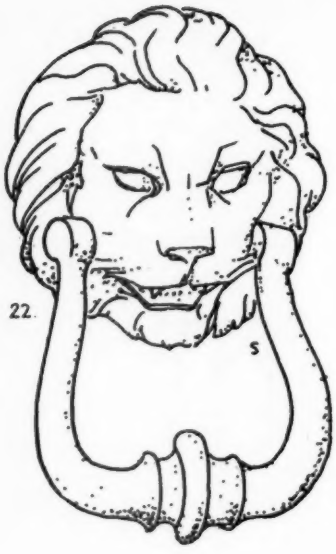

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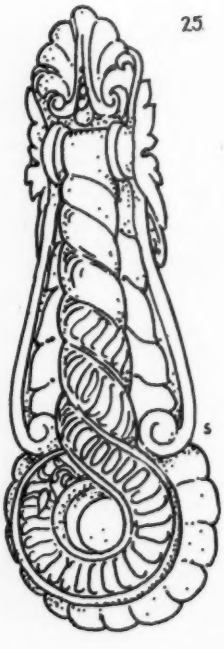

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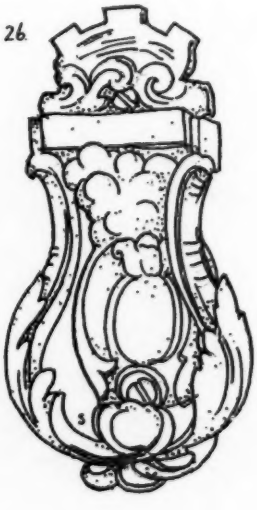
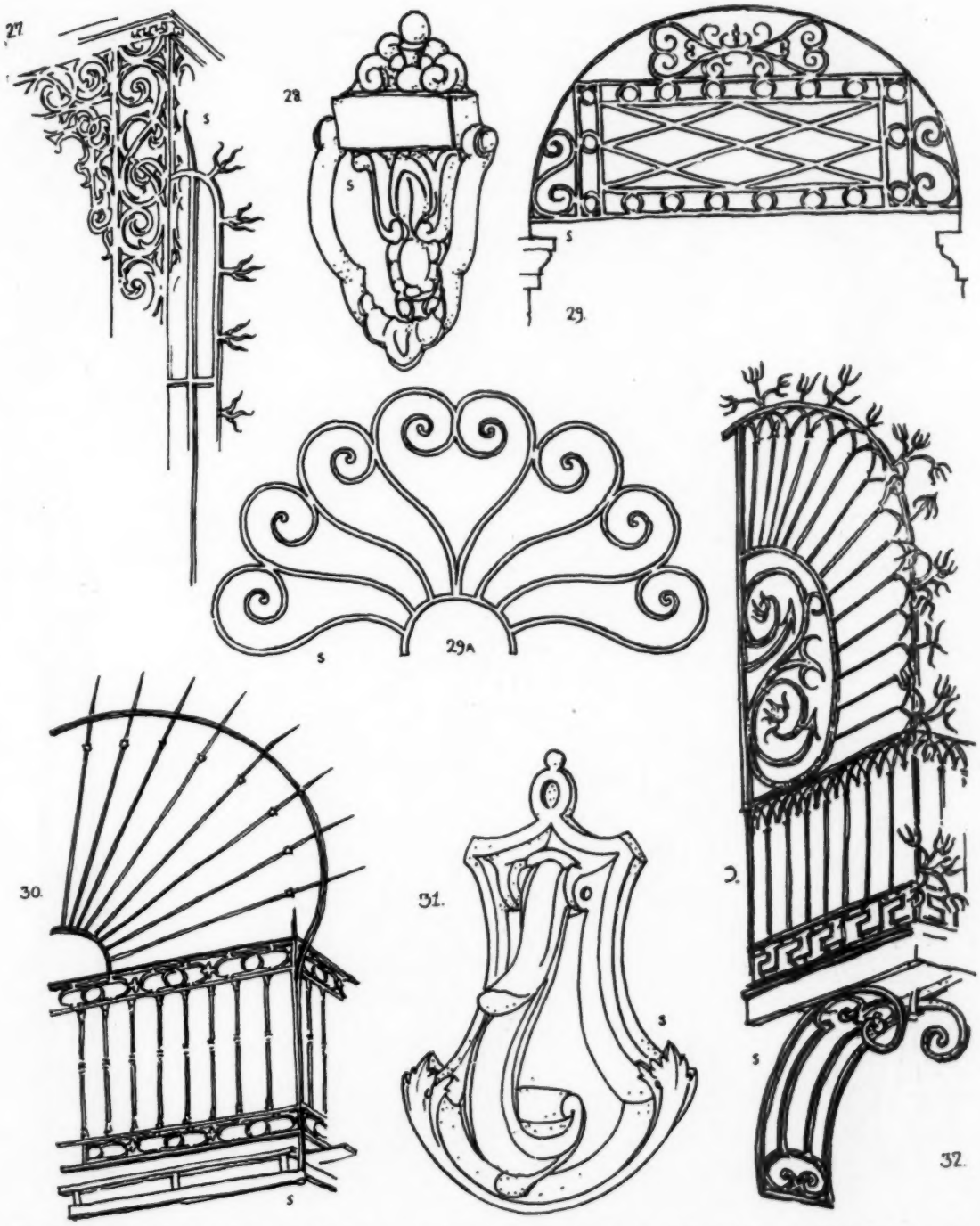
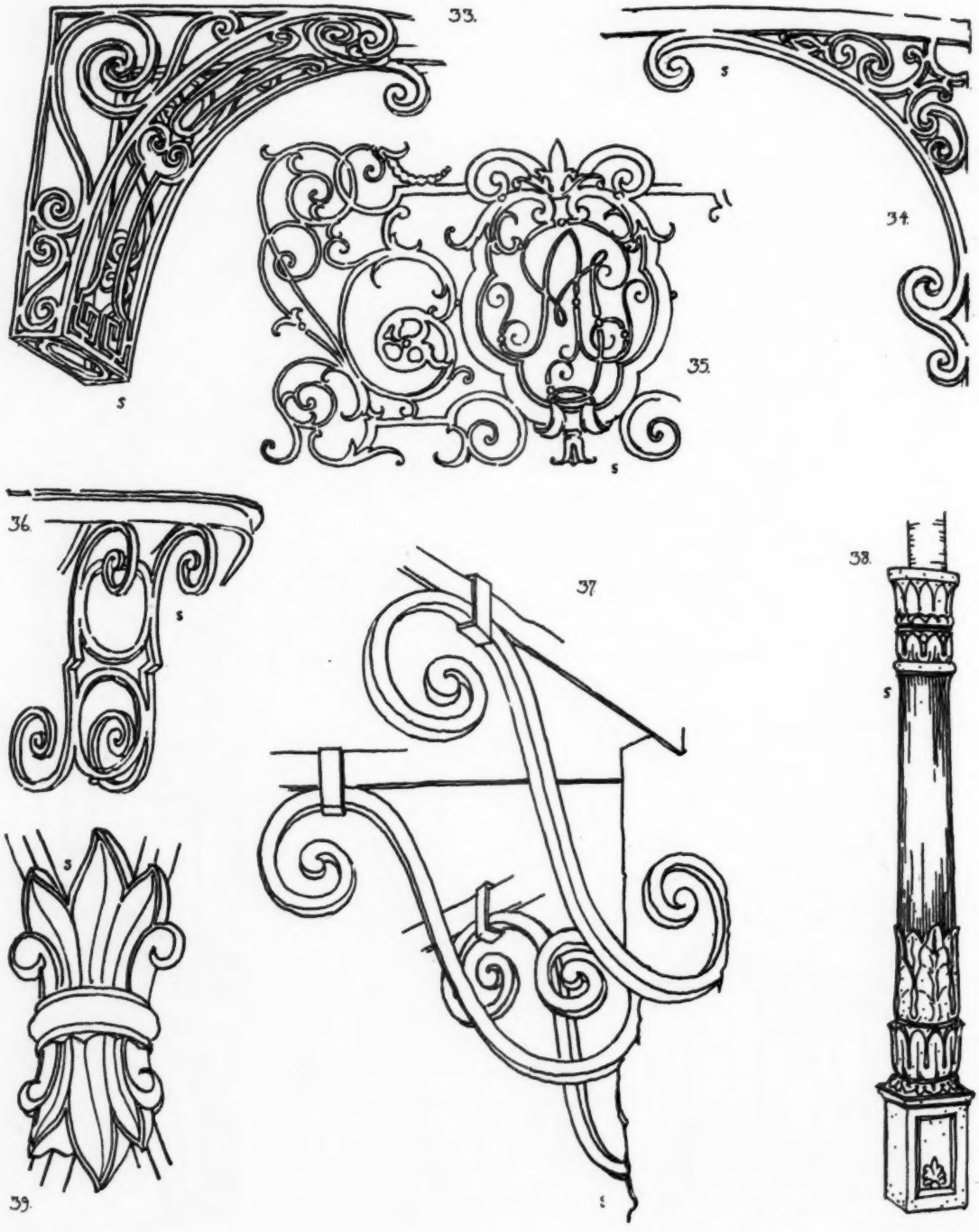


26.

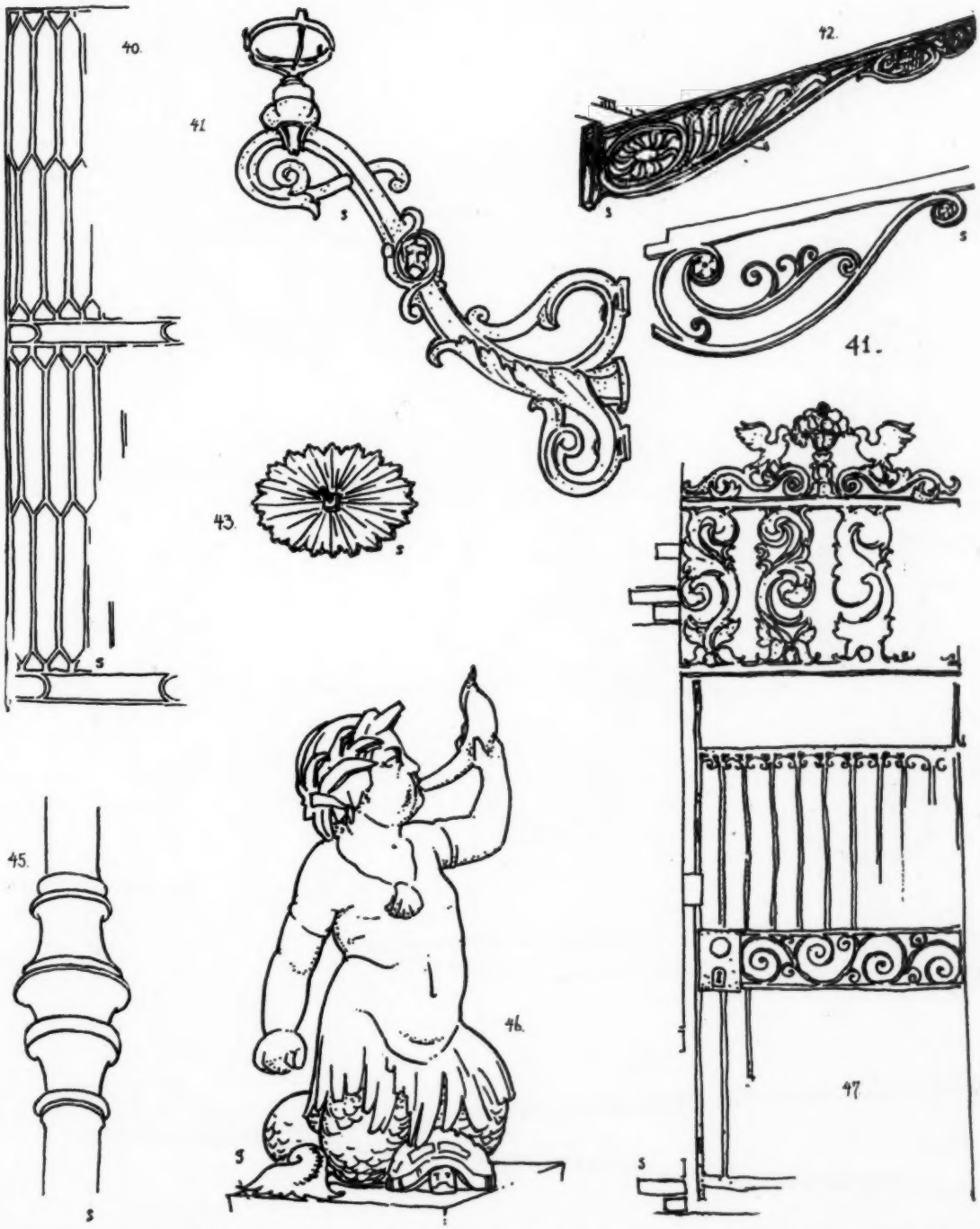
21.—Cast angel and cornucopia knocker, with shield, from Bourbon Street. 22.—Brass lion head knocker from No. 1127 Royal Street. 23.—A very late cast dragon knocker from Royal Street. 24.—Brass lyre knocker from No. 536 Royal Street. 25.—Cast knocker from Dauphine Street. 26.—A common type of cast knocker from alley door in Barracks Street.



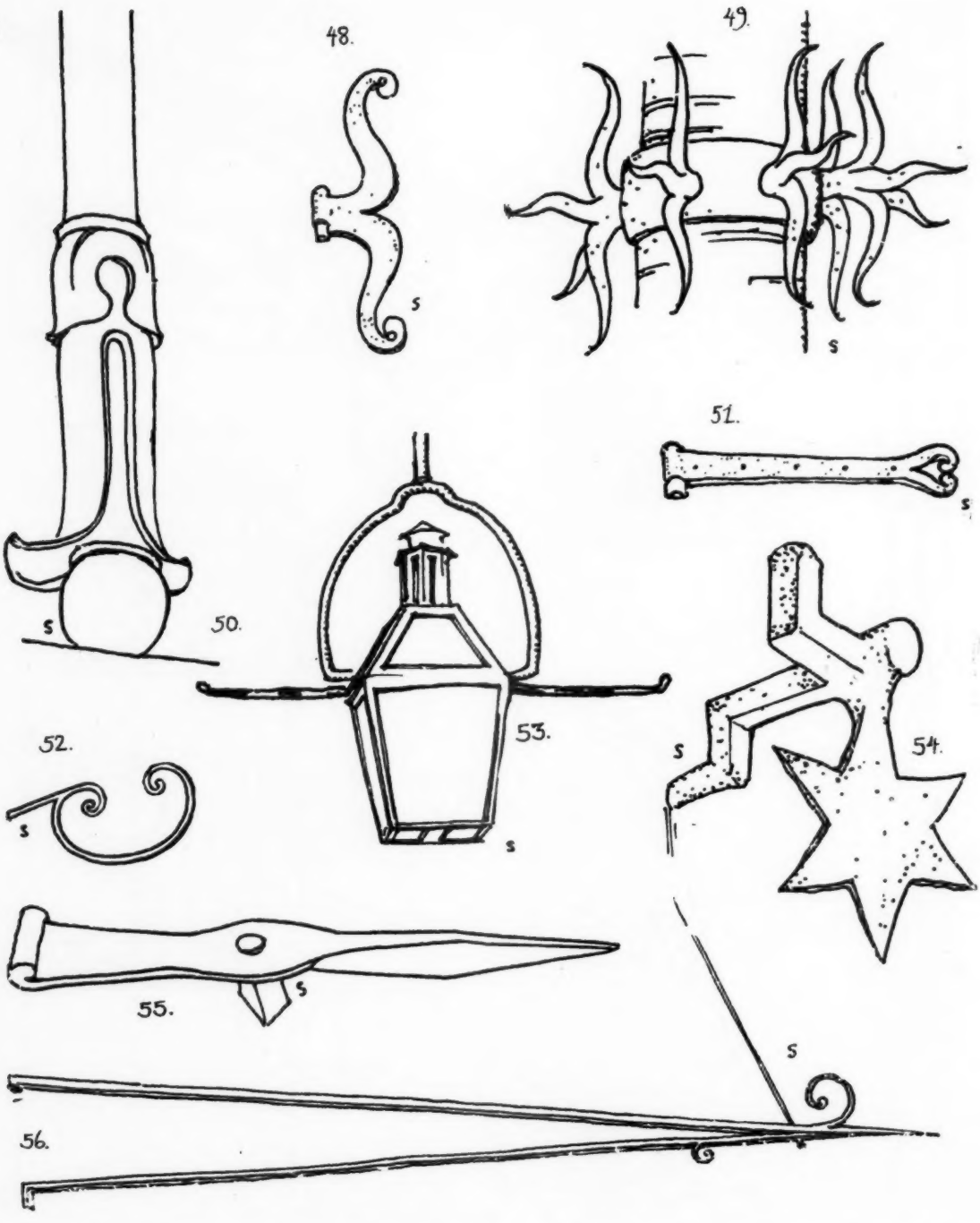
27.—Wrought rail guard from typical St. Peter Street gallery. 28.—Cast knocker from Beccaria House, Little Exchange Alley. 29.—Wrought gate head from No. 634 Toulouse Street. 29A.—Wrought Spanish fanlight grill from corner of Royal and Barracks Streets. 30.—Wrought rail guard from No. 628 St. Peter Street. 31.—Cast knocker from mansion at No. 612 Royal Street. 32.—End of balcony with wrought and cast rail guard and bracket from Brulatour Mansion (now the Arts and Crafts Club).



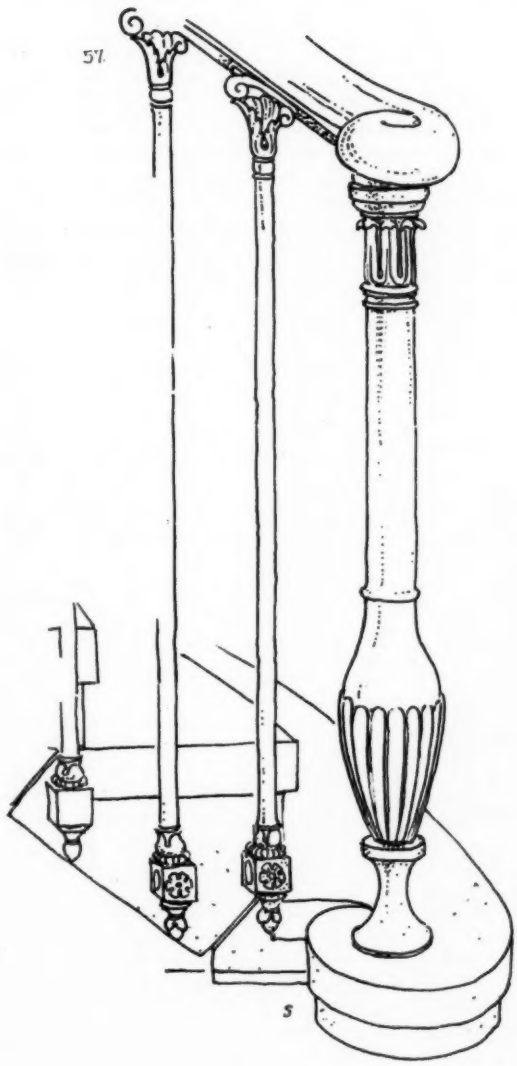
33.—Wrought bracket from No. 612 Royal Street. 34.—Wrought bracket from Kinsey House, Toulouse Street. 35.—Cast transom grill from Pontalba Building. 36.—Wrought bracket from Napoleon House, Chartres Street. 37.—Wrought corner brackets from near old Ursuline Convent. 38.—Cast downspout from Toups corner, Royal Street. 39.—Detail of typical lead joining in wrought iron rail.

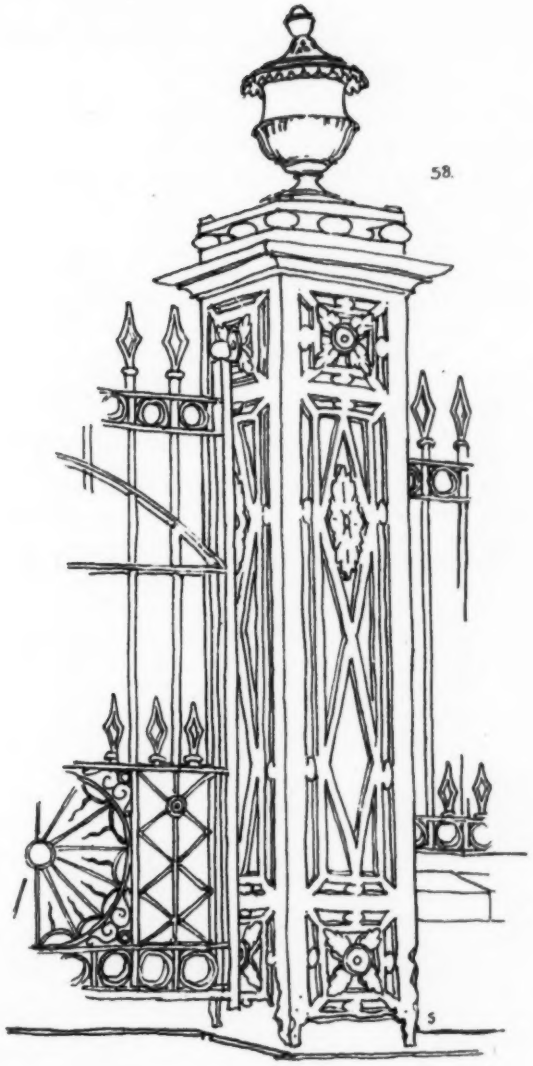


40.—Wrought honeycomb window grill, from St. Louis Street. 41.—Old cast street gas-light bracket from Haunted House. 42.—Cast bracket from Court-of-the-Lions House, Royal Street. 43.—Cast wall reinforcement pin from Little Exchange Alley. 44.—Wrought bracket from No. 620 St. Peter Street. 45.—Detail of cast rail in Orleans Alley (see Fig. 16). 46.—Cast fountain figure (about 3 feet high) from Court of the Three Sisters, Royal Street. 47.—Alley gateway, with a "love-bird" detail, from Royal Street. The gate is wrought, the upper part cast.



48.—Wrought shutter hinge from No. 522 Chartres Street. 49.—Cast forked guard from gallery colonnette, No. 910 Royal Street. 50.—Detail of base of cast rail in Orleans Alley. (See Fig. 16.) 51.—Wrought shutter hinge from No. 526 Chartres Street. 52.—Wrought gutter support from corner of Bourbon and St. Peter Streets. 53.—Old wrought lamp from arcade of the Cabildo. 54.—Wrought star blind catch from Hallatin Street. 55.—Wrought blind catch from Ursuline Street. 56.—Wrought sign bracket (10½ feet in length), from No. 628 St. Peter Street.





57.—Empire bronze newel from granite house at the corner of Dauphine and Barracks Streets. 58.—Wrought gate and post detail from old Exchange Bank, Royal Street.

esting qualities of design and intrinsic beauty, are sufficient to stir up a host of historic associations. The use of the monogram in ironwork continued very late and was even used in the cast iron. The galleries and grills of the Pontalba buildings furnish a splendid example and are really notable.

The houses of that early period usually comprised, besides the business establishment on the ground floor, quarters above for the family, with a court and slave quarters in tiers of two or three stories at the rear. The first floor was almost invariably flush with the *banquette* or pavement. It should be noted here that, properly speaking, a balcony is supported on the walls with brackets and enclosed with a railing, and that a gallery is different in being usually much broader, supported from the street by slender iron colonettes and carrying strips and festoons of ironwork to hold the roof above. The galleries were a natural development in such a climate and were admirably suited to expression in cast iron. Corners were almost without exception rounded. Balconies were frequently continuous across the fronts of adjacent houses and this necessitated the dividing guards with spikes. This awkward feature was often accomplished with a great deal of grace and originality. The Brulatour mansion contains a particularly interesting example (Fig. 32).

Little is known of the makers of the early wrought iron. Slaves were said to have been trained in the art of the smith, and of course there are tales told of certain of the shops. The pirate, Jean Lafitte, is said to have been the proprietor of a famous blacksmith shop located in Chartres Street. One or two of the shops became family heritages that have passed on down to the fourth and fifth generations.

Everything, from garden ornament, balconies, grills, brackets, door-knobs, gates and lamps to such *petites choses* as footscrapes and even blind hinges and catches, reveals a charm of character and a reflection of provincial times not to be equalled anywhere in the United States. Forming such an important tradition in the early architectural history of this country, the old New Orleans ironwork should, in some degree at least, form an available basis for our practice today.

WILLIAM P. SPRATLING.

The Preludes of the Gothic Revival

IN THE preludes of the so-called Gothic revival, England represents one phase and France another. In England conspicuous evidence of a historical interest in mediæval architecture became manifest as early as about the middle of the seventeenth century in the publication of Roger Dodsworth's and Sir William Dugdale's monumental work, *Monasticum Anglicum* (1655-73). John Stevens added two volumes to this work in 1725, and by this time the signs of interest in Gothic began to multiply.

In France Bernard de Montfaucon "astonished the public" by extolling the Gothic cathedrals in his work, *Monuments de la monarchie française,* brought out in the years 1729-33. Neither the English nor the French public was yet prepared for hearing praise of the Gothic buildings, generally estimated ugly and barbarous. Only a few decades before the appearance of Montfaucon's work Sir John Evelyn, in *An Account of Architects and Architecture,* proved a worthy follower of Vasari and Trissino in characterizing the Gothic cathedrals as "congestions of heavy, dark, melancholy and monkish piles without any just proportion, use or beauty." Representing "a certain fantastical and licentious manner of building," the Gothic cathedrals, according to him, were "full of fret and lamentable imagery," not apt to call forth any of the admiration which "results from the true and just symmetry, regular proportion, union and disposition; and from the great and noble manner in which the august and glorious fabrics of the ancients were executed."

Sir Christopher Wren was ahead of his time in giving some recognition to Gothic architecture. However, even though he discerned "no contemptible art, ingenuity and geometrical skill in the design and execution of some few cathedrals," he was by no means an admirer of Gothic construction. The flying buttresses, being exposed to the air and weather, "are the first things that occasion the ruin of cathedrals," he says, and "almost all the cathedrals of the Gothic form are weak and defective in the poise of the vault of the aisles." In his survey of Salisbury Cathedral, which he severely criticizes for constructive defects, he also remarks that "there is scarce any Gothic cathedral that I have seen at home or abroad, wherein I have not observed the pillars to yield and bend inwards from the weight of the vault of the aisles; but this defect is most conspicuous upon the angular pillars of the cross . . . ; for this reason this form of churches has been rejected by modern architects abroad, who use the better and Roman art of architecture."

Wren's occasional endeavors to restore in the Gothic style—for instance in Henry the Seventh's Chapel—were prompted by the feeling that "to deviate from the old form would be to run into a disagreeable mixture which no person of good taste could relish." Nevertheless it is evident that his understanding of Gothic was only very limited and his appreciation small and reluctant.

Yet, Wren was perhaps on the whole not inferior to the English architects of the eighteenth century as regards comprehension of Gothic. Toward the end of this period the scientific discussion of Gothic began. The English works which were published around the year 1800 reveal that the main emphasis was still laid upon the pointed arch as a characteristic of the style and upon its decorative rather than its constructive qualities. Neither Whittington's study on the ecclesiastic edifices of France, in which he disputed the superiority of English Gothic (1809), nor Rickman's important essay, *An attempt to discriminate the styles of architecture in England* (1817), nor, indeed, the later writings by Brandon, Willis, Pugin and others, signified any material advance upon this standpoint.

Samuel Ware's *Observations on Vaults* (in *Archæologia,* 1814) also do not elucidate the principles of Gothic construction, but Ware makes an interesting reference to Soufflot's studies on Gothic architecture presented in a paper which he read before the Académie des Beaux-Arts of Lyons in 1741.

In reality, this paper by Soufflot, as well as the writings of some of his contemporaries, bespeaks a keen interest in the constructive aspect of Gothic architecture and seems to presage the great performance of Viollet-le-Duc, the scientific analysis and interpretation of the principles of Gothic construction. It was its static ingenuity and daring that especially appealed to Soufflot, as to J. E. Blondel, C. N. Cochin and M. A. Laugier. On the other hand, unlike the English students of the style, they were far from appreciating its ornamental language and decorative details.

Having surveyed the cathedral of Milan and a number of French churches, Soufflot commented upon the immensity of the subject, "the matter for a very extensive work." He modestly averred to be able to offer merely a few reflections and "a sort of parallel between the Gothic churches and those built according to the rules of the architecture of antiquity." His conclusions emphasize that it would be both possible and desirable to derive lessons from Gothic architecture, although he prefers the round arch to the pointed, the former being "more graceful." Aside from his æsthetic preference, he sincerely admires the Gothic construction. In comparing the Gothic churches with those *à l'antique,* Soufflot observes their general resemblance as to planning and structural disposition. 'True," he says, "our façades decorated with pilasters and columns by no means imitate those of the Goths and are decidedly superior to them, but we garnish the exteriors, as they did, with buttresses which resist the thrust of the vaults and often are very massive." The superiority of the Gothic construction lies in its great economy and lightness. In the Gothic churches "the great buttresses, although sufficiently strong to meet the thrust of the vaults, yet seem light on account of the manner of construction, which, as even a casual examination will show, is more ingenious, audacious, and even more difficult than ours." "The execution of our vaults is neither so fine nor so difficult." Soufflot finds that thrust and counter-thrust are always well balanced, and this static perfection is characteristic of the vaulting as a whole, its framework as well as the panels of the compartments.

On the other hand, the vaults of the new churches are decorated in a grander and nobler manner, altogether preferable to the "chimeric" and "bizarre" Gothic ornamentation. The execution of Gothic details, like capitals, is sometimes very skillful, but almost always in bad taste. The main façades of the churches, in particular, are over-decorated with figures lacking in taste and grace, and the arched recesses of their portals are often studded with bad ornaments and with small figures which form "a veritable *galimatias.*"

However, the greater height of the Gothic churches, the slenderness of their pillars, whether real or merely apparent, the multiplicity of the constructive elements, concur in producing an illusion of greatness, their interiors nearly always appearing much greater than they actually are. Disdaining the ornaments of the Goths and avoiding the exaggeration of height—Soufflot concludes—one should be able to profit from their example, "holding a medium between their churches and our own."

The Panthéon with its domes and barrel vaults supported by slender columns and piers represented a practical attempt in this direction, too hazardous in the eyes of some critics, highly laudable according to others (Brébion, Cochin) as the manifestation of "an endeavor to unite, in one of the most beautiful forms, the lightness of Gothic construction with the purity and magnificence of Greek architecture."

Such was the estimate of the Panthéon by Soufflot's friends in the inceptional stage of the Greek revival! Almost simultaneously M. A. Laugier, the ardent and entertaining author of *Essai sur l'architecture* and of *Observations sur l'architecture,* wrote that "I do not know if we would not do better in imitating and perfecting this Gothic architecture in the interior of our churches, reserving the Greek architecture for the exterior. No churches so far erected, in his opinion, could satisfy *"le vrai goût."* But the Gothic churches, among all, are the most acceptable. In the main, Laugier merely echoes what Soufflot says, although apparently with less understanding of the excellence of Gothic construction. He finds the Gothic ornamentation "grotesque," but the Gothic interiors have "an air of grandeur and majesty." His comparison of the cathedral of Nôtre Dame and of the church Saint Sulpice is mainly in favor of the former, despite "its innumerable grotesque details." Before the tower of the cathedral in Strasbourg he experienced an admiration bordering upon ecstasy, like Goethe not long after him. "I do not think that any architect has ever produced anything so boldly imagined, so fortunately conceived, so appropriately executed." In spite of their *"delicatesse"* the Gothic edifices do not lack solidity. One should study "the surprising ingenuity of this manner of building, where nothing gives way, although everything is very slender."

Laugier's interest in Gothic, like that of Soufflot or Cochin, had its basis in the rationalistic tendencies of neo-classicism. And despite his deprecation of the heaviness of the new ecclesiastic buildings, the ponderous creations of Ledoux, Peyre, Bélanger, Gondoin, Chalgrin and their contemporaries embodied better than anything else the simplified classical style advocated by him. Jacques François Blondel, the academician and professor of architecture, did not either go beyond the limits of a respectable classicism in his own works, although he actually proposed to make a façade of Gothic design, when charged with opening up a new main entrance to the cathedral of Metz. On the other hand, Blondel was the first one to proclaim the right of the architect to model his works on those of any past period, thus laying down the principle of the modern architectural electicism, for which the Renaissance paved the way and which the historic and archæologic universalism of the eighteenth century brought about. "After all, what does it matter," says Blondel in his *Cours d'architecture,* "if our monuments resemble antique, old, Gothic or modern architecture, provided that their effect is good and each building has a character proper to its particular kind. A real architect is unprejudiced, the beautiful is always beautiful to him; everything is within his province, he can draw equally both from the various productions of the fine arts and from those offered by the infinite variety of nature: to produce master-works he often merely lacks the great opportunity for exercising his genius."

Blondel, in looking backward, perceived the apogee of French modern architecture in the period of Louis XIV, but he also recognized that the sixteenth century as well as the Middle Ages had produced great works. True, the epoch which founded the church of St. Peter's in Rome was to him *"l'époque de la renaissance de la belle architecture,"* but he was far from believing that one should make additions of a modern kind to Gothic monuments, "a custom which always seems revolting to judicious minds."

Blondel's terminology should be noted. He was, like Soufflot, one of the first who used the word renaissance relative to art, and no writer on architecture before him had viewed the art of the past in this all-inclusive and unbiased, historical fashion. Before the historical monuments he did not display any of the spirit of self-assertion characteristic of the preceding centuries which did not hesitate to rebuild, alter or enlarge the old structures in their own manner. From this conception of things to the puristic restorations of the nineteenth century is only a short step. He approved the then recent decision to construct a Gothic façade to the church Sainte-Croix in Orléans, "a Gothic masterpiece which one cannot see without admiring the grandeur of its structure and the simplicity of its architectural *ordonnance."*

For the planning of new churches he offered, as an improvement upon the traditional types, an alternative of his own invention. However, if the Latin or the Greek form would be adhered to, why not attempt, at least, to give to their *ordonnance* a more suitable style and a truer character? "Why not take as a model what is most interesting in our most beautiful Gothic works, for example, the great height and lightness of their vaults; the continuity of their members running from the base of one pillar to that of another; finally, all the various beautiful motives to be found in these ancient buildings? Certainly, one should remember Sainte-Croix in Orléans, Saint Ouën in Rouen, the main front of the cathedral in Rheims, the choir of Beauvais, the tower of Strasbourg —one may find in them beauty preferable perhaps to the heaviness of our barrel vaults, to our pilaster orders, to

our square pillars, to our boldly projecting cornices, sometimes truncated, always incapable of giving to the sacred monuments the particular character proper to them, the dignified appearance which is lacking in most of our temples built about thirty years ago and, in particular, in the restorations made at about the same date in most of our old churches."

The verticalism of the Gothic interiors, according to Blondel, should determine the character of this class of buildings. The Gothic ornamentation is trivial, as a rule, but the apparent yet solid lightness of the vaults, the great simplicity of the forms, the constant uniformity of the plans, the real grandeur resulting from the scarcity or absence of horizontal features, are all worthy of being imitated.

Thus it is evident that Blondel's appreciation of the Gothic style was so unprejudiced as to border upon an unqualified recognition of its superiority in ecclesiastic architecture. Like Soufflot and Laugier, he did not relish the Gothic ornaments, his interest centering upon the constructive qualities of the style, the technical perfection of which aroused his admiration. This rationalistic appreciation of Gothic, coupled with susceptivity to its æsthetic appeal, was a more advanced estimate of the style than the vaguer and more superficial notions peculiar to its contemporary English critics. In England Horace Walpole recommended the cathedral of Canterbury, preferably to Westminster, to those who would borrow ornaments in the Gothic style, adding that the fretwork in the small oratories at Winchester and the part behind the choir at Gloucester would furnish beautiful models. And with a view to facilitating the borrowing of Gothic ornaments Batty and Thomas Langley published *Ancient architecture restored and improved by a great variety of grand and useful designs entirely new in the Gothic mode for the ornamenting of buildings and gardens* (1742); reprinted 1747). England started to build mansions affecting "the pointed style" in the superimposition, externally, of a few decorative elements of Gothic design and in the application, internally, of more or less awkward imitations of Gothic ornaments and traceries. From the French viewpoint these first attempts in pseudo-Gothic, expressive of a more or less romantic amateurship, must have seemed singularly tasteless.

NILS HAMMARSTRAND.

A New Work on the Theory of Architectural Design

ART COMES into being through the workings of the artist's appetite and instinct; the process of its generation is still hidden from knowledge. The enjoyment of art is also instinctive and unexplained. Poe and Stevenson tried to tell how their art was made, but their recipes have proved useless to others. Teachers of "how to look at" buildings, statues or pictures mostly have done nothing but divert their pupils from art into ethics or into the study of history.

Now that psychologists are rediscovering symbolism, there is perhaps less danger than latterly of ethical and traditional elements in art crowding out art itself. Spectators will receive credit for their intuitions as well as for their conscious judgments; the unreasoning man who "knows what he likes" will become at worst an interesting subject for the analyst.

Behind all art, however, there lies the mystery of birth. Until the day when a baby is made in a laboratory, the manufacture of art by rule will remain impossible. But if how to be an artist is an unteachable thing, how to be a good parent of nursling works of art is a thing which many artists need greatly to learn. In England, in particular, the infantile mortality in artistic ideas is appalling, and in no art more so than in architecture. How many of our buildings which might have been works of art are merely mummifications of little dead ideas, ideas starved or poisoned before they came to full growth!

Mr. Howard Robertson's book[1] on the principles of architectural composition is primarily a book of artistic hygiene for architects. It discriminates between natural and unnatural methods of design and emphasizes those laws of reason which inevitably must worst the designer in conflict with them. It drags as far as possible into the light of conscious thought the problems which subconsciously disturb the unthinking artist, and lays a basis of good sense for his efforts toward their solution. It suggests to the architect what he should supply and to the patron and the critic what they should demand. The patron and the critic, indeed, may learn from it more than is usually revealed to them of the secrets of the architectural workshop, gaining thereby an increase in their perception of the real merits and defects of the buildings which they may be called upon to judge.

Mr. Robertson preaches in drawings as well as in written words, and the one hundred and sixty-three sketches which his book contains make admirable diagrams illustrative of his arguments. His draughtmanship —clean, eclectic and direct—has an elegance which his prose style does not fully share, although from that nothing is lacking which is necessary for the simple exposition of his meaning. His book consists of eleven chapters introduced by a preface and concluded by an appendix and a bibliography. The late Mr. Gascoyne's beautiful drawing of Liverpool Cathedral, as it will appear from the south when it is complete, is reproduced as a frontispiece, and Mr. Robert Atkinson signs a commendatory *nihil obstat.*

In the first chapter Mr. Robertson considers the quality of "unity," rightly giving precedence to that without which no edifice can claim to be regarded as a work of art. Its presence or its absence is recognized by everyone and betrayed by our instinctive choice as to whether we speak of "a building" or of "some buildings." The most dangerous enemy of unity is duality, tending as it does toward ambiguity; trinity and further subdivisions are less likely to occur and more capable of cure. To the

[1] *The Principles of Architectural Composition.* By Howard Robertson. Architectural Press, Ltd., London. 1924.

avoidance of duality, therefore, Mr. Robertson devotes the greater part of his counsel in this chapter, explaining the problem clearly and well. His comparison between the railway station at Tours and that at King's Cross points a rather doubtful moral perhaps; it is true that the first has "marked duality" and that the odd little clock turret in the London example shows an attempt, not made in the French station, to unite the two large railway sheds in one design. But what a hopeless attempt it is—like trying to unite a couple of beehives with a clothes-peg! Nothing could connect such monsters architecturally, short of bringing forward an administrative pavilion between them; this being inconvenient, the acceptation of inevitable duality seems the better part. Duality sometimes is inevitable, and it is not necessarily shameful to build two things instead of one. The average pair of cottages or villas only suffers by the designer's attempt to make the party wall the centre of the composition. The eye can take pleasure in twins without their being extremely Siamese.

This is not to demur at Mr. Robertson's insistence upon unity, but to point out that it is not possible to lay down rules for the size of the unit. The unit must have insistent unity, that goes without saying—but there must come an end somewhere to the process of combining units into a larger unit, unless the whole world is to be laid out as one town-planning scheme. That buildings for various uses are built in one place at one time is not a compelling reason why they should be more regularly combined with each other than they can hope to be with their neighbors, if convenience point the other way. The degree of their architectural unification is a matter of expedience rather than of necessity.

Chapter II of Mr. Robertson's book is entitled "The Composition of Masses," and must have been a difficult chapter to write. What is called "good composition" is a quality easier to recognize than to reason about, and the accepted practice followed by Mr. Robertson of describing visual effect in such terms as "weight, resultant force, centre of gravity," and so forth, is bound to leave in the mind an impression of uneasy symbolism rather than of exact statement. Mechanical forces possess direction, lines suggested by conjunctions of forms do not; and the spectator who loses sight of this distinction may find himself in the unhappy position of the writer of this article, who made an enemy for life of the painter of a Picassonian picture by his unwilling assumption that what was meant for a bomb was a bomber, and what was meant for a bomber was a bomb. Mr. Robertson says truly that "it is only in the case of a perfectly symmetrical composition that the placing" (of the visual "centre of gravity") "can be mathematically determined," and claims no more for the centres shown in his other diagrams than that they are "in the approximate position in which the trained eye seems naturally to place them." This being all that can be hoped for, it seems a pity to borrow for so empiric a process the exact language of mechanics.

Anyone who reads the chapter through, however, will probably gain from it an excellent notion in the vague of what experience can teach us in the composition of masses. Perhaps the two sketches with which it ends might profitably have been omitted. The second of these shows a humorless and incongruous American design for a skyscraper in which a series of classical temples appears to have been pushed up out of the ground on sticks of different heights, the highest stick being surmounted by a dome. The first sketch shows the sticks without the pretty trimmings and is given by Mr. Robertson to show the "simple geometrical shapes" forming "the basis of the finished architectural conception." These shapes are not particularly good, and in the "finished architectural conception" nothing is added to them which could make them better. The designers of this thing entitle it the "skyscraper of the Future"; it is to be hoped that they are misinformed.

Chapter III begins with some not very convincing reasonings in support of the necessity of "The Element of Contrast," the chapter's title. There is no need to cavil at these reasonings, since the necessity of variety in art is generally admitted. Mr. Robertson summarizes very ably the commoner methods by which this variety can properly be obtained, and adds the necessary warning that "contrast too freely employed will become monotony." In the succeeding chapter he carries his consideration of effects of contrast further, and enforces his contentions by some excellent illustrations. The sketch of a design for a tower at Potsdam seems out of place among these, and it is difficult to understand what is meant by its sub-title "Expressionism in Plastic Form." "Sensationalism in Flabbiness" would have suited it as well. Another sketch of a design for an American office building is very silly, the "accents" described by Mr. Robertson as being "definitely placed" could not but be "definite" wherever they were put upon such a groundwork. In contrast with these de Klerk's interesting project for a boating club at Amsterdam has real emotional significance, and fully deserves the praise which Mr. Robertson gives to it.

"Fire is positive and water is negative." Yes—perhaps; water puts out fire certainly. "The trunk of a tree is a positive element, the foliage negative." Now, what makes Mr. Robertson think that? Let us look back at his definitions. "The two main categories into which these characteristics" (that is the peculiar characters of architectural details) "fall may be termed the 'positive' and the 'negative,' and, as might be expected, they contrast with, and are complementary to, each other."

Certainly almost anything might be expected after embarking upon such a terminology, an enterprise which the writer of this article refuses to undertake. Even the "softening of 'positive' rigidity by 'negative' accompaniments" in the noble stern of a sailing vessel shown in Figure 60 does not allure him from his determination to have nothing to do with an argument based upon so false an antithesis. If for "positive" he may substitute "primary"—for "negative" "secondary," he has no quarrel with the general sense of the chapter (V) entitled "Secondary Principles," a chapter in which a great many true things are well stated. Here again the illustrations are admirably chosen, a design for a "People's Hall" by a Dutch architectural student being particularly interesting as a specimen of what romantic irrationality can achieve.

A NEW WORK ON THE THEORY OF ARCHITECTURAL DESIGN

"The Expression of Character in Design" is the subject which Mr. Robertson tackles next, and it is probably the need for brevity which has caused him not to distinguish clearly between functional character and æsthetic character. Both are usually considered too little in English-speaking countries in which it is equally common to find girders disguised as arches, and public baths decorated in the style of manor-houses. The utilitarian windows of the New York Public Library stack room are an example of functional character—the useless high roof of a Long Island cottage designed by Mr. Pope is an example of æsthetic character, and Mr. Robertson's illustrations of both are admirable and relevant. Sir Giles Scott's design for the War Memorial Chapel at Charterhouse appears also in a sketch which sets one wondering whether self-conscious "character," such as this, is anything better than tricky and unreal. There is poetry in the conception, but it is poetry akin to that in the painted architecture of John Martin.

Turning next to "Proportions in Detail," Mr. Robertson describes some of the simpler theories of geometrical proportions which have been held from time to time without committing himself to their support. He does not allude to the investigations of William White, nor is there any reason why he should have, considering the inevitable summariness of his account. White's work in this field, however, is unfairly forgotten, and the mention of his name here is made deliberately as an act of piety. Mr. Robertson's remarks upon the self-assertiveness of the square in combinations of rectangular form are true and useful. His little sketch of the garden front of Hampton Court must justify his criticism of its fenestration even to the most habitual Wren worshipper.

The short chapter which follows treats of "Scale" and opens with a definition quoted from the late Mr. Belcher's *Essentials in Architecture*. As Mr. Robertson points out, this definition, in so far as it defines anything, defines good proportion, a greatly different thing from what architects mean by "scale." "Scale" is generally taken to signify the size of the parts composing a building in relation to an imaginary fixed standard based ultimately upon the size of the human figure. Incompatibility in scale between the several parts of a building is a sin against good proportion; the only possible sin against true scale is that of making a thing for man's use the wrong size for a man to use. The house in Grosvenor Street illustrated in this chapter is a remarkably good example of a large scale justly maintained; its fault is its unmannerly disproportionateness with its less ambitious neighbors. All this Mr. Robertson states clearly and well, giving excellent counsel when he recommends us "to cultivate the habit of measuring and noting the actual dimensions of buildings and features which may remain in our minds as fixed standards of comparison."

The ante-penultimate and the penultimate chapters in the book deal respectively with the "Composition of the Plan" and the "Relation between Plan and Elevation." As Mr. Robertson says of the first of these subjects, "to treat it exhaustively might well occupy several volumes," but it is remarkable how much ground he manages to cover in a few pages. Sir Edwin Cooper's excellent plan of the Port of London building is illustrated and shows to advantage among other examples of varying merit. It may be doubted whether the rotunda in this design is the strictly logical form for the Rates Office. The approach to it from the vestibule is inevitably awkward, and it seems possible that no more of the present rotunda was called for than the hemicycle facing the entrance, which could have served as the apsidal end of a short broad hall placed on the principal axis. This might no doubt have been impracticable for other reasons; and the rotunda as built is a magnificent thing. Nevertheless, Mr. Robertson's note calling attention to the preparatory vestibule, calls attention by implication to the plan's one fault—the manner in which the doorways from this vestibule into the far larger rotunda are forced by the form of the latter to contract the entering crowd rather than allow it to expand.

The best plan of all those illustrated is probably that of the Paris Opera, given by Mr. Robertson in his chapter upon the relation between plan and elevation. The plan of McKim, Mead and White's design for the Tennessee Memorial shows how two buildings may be disguised as one, and how ingeniously the consequences of this misdeed can be dodged and—almost—escaped. The elevation fitted on to this plan avoids false expression by the prudent expedient of expressing nothing in particular, a step in the right direction in American monumental design. Sir Edwin Lutyens' well-known house at Ilkley suggests a doubt whether in a plan of such stately pretension the front door should be faced internally by a blank wall. It may be that the plan of the Pennsylvania railway station is expressed fairly by the elevations—it cannot be said that the functions of this building are expressed fairly by the plan.

This "expression of function" is the subject of Mr. Robertson's closing chapter, and here the illustrations tell their story with little aid from the letterpress. How the banal frightfulness of the building of the *Berliner Tageblatt* expresses "the function and construction of an important office building" it is hard to imagine, and Mr. Robertson rightly points out the over-emphasis with which the weak blustering idea is asserted architecturally. The Wimbledon Lawn Tennis Stand by Mr. Stanley Peach is deservedly praised, and a noble grain elevator at Montreal makes an excellent picture.

Taking his work as a whole, Mr. Robertson may be congratulated upon having written more than adequately the first book of its kind to be published in England, a book for which there must be a large demand. It cannot claim to be more than an introduction to its subject, but as such it is well put together and easy to read. The impression which it leaves behind is one of reasonableness and good sense, and Mr. Robertson is fortunate in his power of effective illustration of his arguments by drawings and clear diagrams. The bibliography at the end is not as representative as it might be—but contains no book which is not really relevant to the study of the subject, a rare thing in the swollen bibliographies customary nowadays. It is greatly to be hoped that many amateurs and members of the general public will buy this book and be attracted by it to a more rational study of architecture than they have attempted before.

H. S. GOODHART-RENDEL.

London Letter

THE London press has recently become for the artist a source of wicked and tremulous joy, for the great British public has wakened from its torpor and is in process of castigating one of the artist clan. The cause of the trouble is Mr. Jacob Epstein, sculptor, who has executed in Hyde Park a memorial panel in stone in memory of W. H. Hudson, the great lover of nature. Mr. Epstein, working quietly and powerfully, has produced one of the few pieces of modern sculpture in England which have artistic significance, but one fine day the work was unveiled, and the hue and cry began.

The Hudson Memorial has a charming site in the Park, with in front a simple pool and garden pleasantly designed by the architects Adams & Holden, and behind it a background of verdure. It is to be at once a memorial to Hudson and a sanctuary for the birds of which Hudson was so fond. But no one expected it to combine with these things the qualities of art, and the wrath of the Philistine has been kindled.

The outcry began with a few indignant letters from leisured gentlemen who wrote from London clubs, and who must have hurriedly refreshed their memories of Hudson's earlier writings, for Epstein's panel has as its principal motive Rima, the fairy, being of *Green Mansions*. They found in general that Epstein took liberties with anatomy, and one critic in the *Evening News* hinted that Epstein was un-British. Men like Sir Ray Lankester, who as a celebrated scientist, naturally felt equally qualified in art, wrote to enquire who were the officials responsible for permitting the erection of this repulsive work, and the editor of *Punch* wrote to himself for publication in that paper a letter which was faintly dreary. Just when the controversy was languishing, Bernard Shaw stepped into the breach. Shaw feels no doubt about Epstein; all that he complains of is that in this Hudson Memorial there is not enough of him. He suggests that if we cannot afford to give Mr. Epstein *carte blanche* we had better get the job done in the Euston Road in a thoroughly commercial manner. He also adds that he quite understands the people who hate Epstein's sample. They "are in the grievous position of people who want a fox-trot and have a Beethoven symphony thrust into their ears."

Finally, from words, the critics passed to action. A man called Homerville Hague, "painter and sculptor," appeared in front of the memorial armed with sandwiches, three bottles of lemonade and some throat pastilles, and for twelve hours carried on a continuous performance of invective, while policemen smiled weakly and occasional hecklers suggested that he was a public nuisance.

The battle is still on, and Epstein must be chuckling.

* * *

It is curious, in reading of Epstein, to note the flattering sorrow which greets the disappearance of Gilbert's statue of Eros, previously mentioned in these Letters as being removed from Piccadilly Circus. Curious—because it is on record that the Eros, when first put up, called down such flouts and gibes that the sculptor's life was scarcely worth living.

The fact is that the average Englishman hates to be disturbed, and no work of art should ruffle his emotions. Just now, however, as things are happening in painting and sculpture and architecture, there is vocalization from every quarter, and even Sir Edwin Lutyens' Cenotaph has been attacked as belonging to a "thoroughly ugly, coarse, soulless style, having run its course in Germany and America."

Another building which arouses rage in many quarters is the British Pavilion at the Paris Exhibition. It annoys principally through the fact that it belongs to no recognized style. To some it is Russian or Swedish or Indian and to others Gothic, or Japanese, while one paper states that it resembles a typical American golf club house!

To this building the critics of the more serious papers have been fair and often favorable, but those of the "yellow press" have been virulently antagonistic, even a man like Sir William Orpen seeking the hospitality of the *Daily Mail* for a truculent letter beginning with the now familiar words "who is responsible for.....?"

* * *

There are not in this year's Academy many architectural works of outstanding merit. Sir Edwin Lutyens has a large model of a rather fine War Memorial at St. Quentin, a design of simple cubic shapes, ably grouped round a central mass, and there is a model of the new building for the Bank of England, by Troup & Baker. The nature of the problem largely accounts for one's feeling that this scheme can never be really satisfactory, but there is less excuse for the failure to maintain any of the spirit inherent in Soane's blank outer wall, which will now look as if it had been built around the new buildings as an afterthought, and even at a later date, for Soane's work exhibits a much more modern tendency than this new structure which exhibits the usual rather tentative Renaissance adaptations.

Some of the best things in the Academy are a house in Dorset by Guy Dawber, the new President-Elect of the R.I.B.A., the head offices of the Midland Bank by Gotch & Saunders and Sir Edwin Lutyens, the new Westminster Bank by Mewes & Davis, and a fresh and clean design by Joass for an aquarium for the Royal Zoological Society. Apart from these there is the usual decent domestic work and the usual rejection of designs which have not succeeded in acquiring the suave Academy standard of "safety first."

* * *

Adding to the list of competition successes mentioned in the last *London Letter* as falling to the younger school of architects comes the announcement that the very important prize offered for the New Manchester Museum and Art Gallery has been won by a young man of 28, Mr. Ernest Webber.

The building is to cost £300,000 and is to be built in the heart of Manchester, unless the usual opposition party manages to veto the whole scheme.

The design shows little that is novel externally, the usual Græco-Roman features—including a Corinthian portico—being incorporated, but it is the first time in England that any Museum scheme has been premiated which follows Mr. Hurst Seager's suggestions of topside-lighting.

* * *

Following on the visit to the States of Mr. Topham Forrest, the architect of the London County Council, and very probably as a result of his observations there, the Housing Committee of the L.C.C. have decided to build this summer 2,000 wooden houses to help in the accomplishment of their aim to provide 12,000 houses a year. At present the available skilled labor enables them to get built not many more than about 2,000 houses in brick per annum.

The wooden houses will be prepared by mass production, and will have the same accommodation as the usual brick types. In the meantime experiments with steel and other methods of construction are still being pursued, but the wooden and other types will be used to supplement the brick houses which are still the favorites for durability and ultimate economy.

* * *

The Franco British Union of Architects has just held in Paris its Fifth Annual General Meeting. Last year the venue was Paris, and although strictly speaking it was the Frenchmen's turn to come to London, the Exhibition of Decorative and Industrial Arts provided the excuse for the break in the exchange routine.

The object of the Union is to promote Anglo-French friendship and understanding in the profession, and the recognition which it has received in official circles has helped the Union to prosper. On the last visit to London the British Government was host at a luncheon, and this time in Paris Monsieur Paul Léon, Directeur des Beaux-Arts, was present at several of the meetings.

At a banquet offered by the French to the English members one was able to gauge how real is the cleavage between the old and young architects on both sides of the Channel. The new tendencies manifested in the Exhibition are evidently looked upon askance by many of the French brought up in the Ecole traditions of twenty-five years ago, and while there is more sympathy on the English side it is evident that the spirit of conservatism will continue to provide a check on any extremes in experiment.

Monsieur Léon himself, talking in his official capacity, spoke feelingly of French tradition and doubted whether the Exhibition was going to bear real fruit in the shape of progress in design. The chorus of approval and the energy of the table thumping showed that his feelings were more than shared by the old guard, so many of whom have seen recent graduates of the Ecole like Castel, Laprade, Expert, Levard, and Boileau join up with the modernists who have produced the French side of the Exposition. There is no doubt that an architectural battle is engaged all over Europe. Whatever the architectural "manner" which emerges, it is certain that architects have begun to think and worry once more about their art, and nothing but good can come of that, especially in England where the new Regent Street has arisen to show the necessity of a general clarification of aims and methods.

* * *

The famous "Five Sisters" window in the North Transept of York Minster has just been restored and unveiled as a memorial to the 1,456 women of the Empire who laid down their lives in the War.

It is the finest Grisaille window in the world, and takes its name from a story in Dickens' *Nicholas Nickleby* to the effect that the design for the glass was worked in tapestry by five sisters. It has taken two years to clean and overhaul the window, at a cost of £3,000, but the job was so well done that during the releading not a single pane was broken. The window is the only war memorial in the country dedicated "to the memory of brave women."

London. "X."

Thoughts About Art

A CORRESPONDENT writes us as follows: "In my newspaper I lately came across the following which perhaps has some relation to the last paragraph in your interesting *Thoughts About Art* in the July JOURNAL:

"'SEEKS CURE FOR ART FATIGUE

"'Chicago, June 10. A cure for that tired, bored feeling most people experience after a run through an art gallery is being sought by the American Association of Museums, and Professor Edward S. Robinson, noted psychologist of the Universiay of Chicago, has undertaken to find it. "It is an established fact," said Professor Robinson, "that the casual tourist comes out of an art gallery ready for bed and retaining little information about what he has seen and no æsthetic appreciation."

"'Laboratory experiments are being conducted to determine how numbers of pictures viewed affect different persons; whether seeing many pictures of the same type is tiring; whether observers retain many kinds of pictures and many impressions of a tour includes whether labels are a help.' "I am not sure," adds the correspondent, "as to the exact translation of the last sentence, for my knowledge of art-fatigue-laboratory terminology is just beginning. But I remember very well a bit of whimsy by Frank R. Stockton which it might be well to call to the attention of the struggling Professor: 'There was once a Queen who founded in her city a grand museum. This institution was the pride of her heart and she devoted nearly all of her time to overseeing the collection of objects for it and their arrangement in the spacious halls. This museum was intended to elevate the intelligence of her people but the result was quite disappointing to the Queen. For some reason—and what it was she could not imagine—the people were not interested in her museum. She considered it the most delightful place in the world and spent hours every day in examining and studying the thousands of objects it

contained. But although here and there in the city there was a person who cared to visit the collection, the great body of the people found it impossible to feel the slightest interest in it. At first this grieved the Queen and she tried to make her museum better. But as this did no good she became very angry and she issued a decree that all persons of mature age who were not interested in her museum should be sent to jail.'"

"The tale proceeds in its general Stocktonian direction, and various persons come into the scene. But the speech of the Queen will serve to gather up the amusing ends of this little fable:

"'It is a pity that my long labors in their behalf should have been lost. For many years I have been a collector of button-holes, and there was nothing valuable or rare in the line of my studies of which I had not an original specimen or a facsimile. My agents brought me from foreign lands, even from the most distant islands of the sea, button-holes of every kind, in silk, in wool, in cloth of gold, in every imaginable material, and of those which could not be obtained careful copies were made. There was not a duplicate specimen in the whole collection. Only one of each kind, nothing repeated. Never before was there such a museum. With all my power I strove to educate my people up to an appreciation of button-holes, but with the exception of a few tailors and seamstresses, nobody took the slightest interest in what I had provided for their benefit.'"

F. S.

§

Another correspondent sends us the following comment on the same news item: "Here's a clipping about 'art fatigue' which seems a very curious combination of words and phrases—but it is sufficiently interesting to warrant analysis (if it will bear it), with a view perhaps towards helping the good Professor in his apparently hopeless task. Obviously, the first thing that pops into mind as a suggested cure is that the people do not *run*. But the obvious thing is always so simple as to be altogether uninteresting to this complicated generation, so we shall have to let it pass for the moment.

"Another more or less obvious—and therefore too simple—cure, is to eliminate the art galleries and thus remove the major cause of the diseases.

"The Japanese so arrange matters, it seems, for each Japanese gentleman has his own art gallery, and he keeps it locked up tight—and to be very sure of the tightness of the locking, he keeps it in a 'hole-in-the-ground' called the 'go-down.' He keeps there the paintings, bits of sculpture and what not, that he and his fathers and his fathers' ancestors have collected *with perfect taste* and that very subtle appreciation that only Japanese seem to possess. And periodically he brings out one thing—just one—and puts it in the tokonoma of the principal room of his home, and he and his friends sit quietly in front of the tokonoma and feel the spirit of the breeze in the pine tree, or the cherry blossoms in moonlight, or the Great Amida Buddha, or whatever it may be that the heart of the Artist has put into paper or the wood or the ivory. They don't *run*—they just *sit and absorb*. And you may be sure that for the Japanese, no labels are necessary—although the picture, if picture it be, may have a very short and very beautiful poem in one corner or another—just to prove that the artist was an Artist, and not a specialist.

"Of course it is tiring to anybody—*even* the casual tourist—to see a number of pictures, or a number of anything else. There is nothing in the world quite so tiring as numbers. An adding machine is the only thing known that can handle them without fatigue—and an adding machine is just a little less human than a casual tourist. If the museums would make themselves smaller—oh, very much smaller—and show only one, or two, or three (certainly not over eight) things at a time; and if they would show those few things in the surroundings for which they were made, it would become very easy to ease the road, for the principal obstacle in the road would be removed.

"And the usual type of 'education' that has filled the youth of the casual tourist (and abruptly stopped when the regulation diploma was received in the regular way), is of a sort that does not, and cannot, prepare an individual to receive and retain any sort of impression of anything at all—unless it be what he sees in the movies, or what he hears broadcasted. And as for labels, if the pictures *need* labels they are not real pictures, and should be thrown out-of-doors, and their makers are not honest craftsmen, and should be thrown into jail or relegated to limbo.

"And so the cure becomes apparently complicated—and yet is very simple. A very very great artist said not long ago that 'Life has become very complicated, and art must never be like that.' The museums are trying to make art appear to be as complicated as life itself. Another very very great artist said that 'Beauty is truth, —truth beauty. That is all ye know on earth, and all ye need to know.' Just let the casual tourist—and the Association of Museums—learn that very simple thing, and the casual will disappear and the tourist will stop touring and his 'run' will become a walk and finally a 'Stop, Look and Listen,' and he will learn the language of that Beauty which is Truth, and there will be no more tired, bored feelings. And the museums can close their doors, and the noted psychologists can turn their experiments into other more useful channels, as for example, the still unsettled question as to the age of Ann. So there you are.

"And now to turn our footsteps toward our own dusty doorstep—why do we not try out an architectural exhibition sometime, in which the 'whole show' is simply *one* good building by *one* honest craftsman, shown from first sketches through studies, working drawings and details to finished photographs? Of course no medals could be presented at such exhibitions, and there would not be much to broadcast—but what of that? The delegates would be spared that tired, bored feeling that comes after a run through a mammoth exhibition such as we lately had in New York. One of us was so spared because firstly he didn't run, and secondly because he saw nothing but the wonderful blue-green, Greenley-Hewlett ceiling. And in that ceiling he felt the calm and the peace and the poise and the art that *must* be in the hearts of its makers, and he was happy. And that happiness paid for the trip to New York, the rush, the noise, the loud-speakers and all the other museum accessories.

THOUGHTS ABOUT ART

"And after all—in the midst of all life's supposed complications there is simplicity—the true simplicity of beauty—if one will only look and listen with his heart and STAY OUT OF MUSEUMS." H. F. C.

§

"The study of Charlie Chaplin is quite as important as that of any ancient poet for the modern child, and of infinitely more value for his master, who might learn from it the advantage that genius has over mediocrity, the importance of art over all other things, and the intense sympathy of genius for the weak and oppressed." —OSBERT SITWELL in *Discursions, on Travel, Art, and Life.*

§

"It is a serious matter when a man is so afraid of being traduced as Philistine that he lets his defences go down before every professedly artistic invasion and allows himself to become carrion for the legion kites of bogus æstheticism. Not to know this kind of hawk from a handsaw is a fairly common weakness among those who appear to have been educated above their intelligence. But while to be frightened of the name of Philistine is bad, to deserve it is worse. Philistia has many citizens: thick around its highways is packed the crassness of the clod, who needs must love the lowest when he sees it. But pierce its remoter byways and you may find the man of a common sense perhaps too tough but of an honesty that is not to be impugned who is in reality doing art good service when he refuses to be bullied into gushing admirations by terrific terminology or by the intrigues and antics of the cliques. It is for the blood of such that the Fee-Fo-Fumists sniff hungrily, proclaiming him Philistine and ravening against his kind. But, whether or not he deserves his passport to Philistia, he is a man who does the State some service. For in the end his passive resistance drives the other side from abuse to argument, and the more art is lifted out of the world of assumptions into the sphere of discussion the better for the community. That sturdy prudence of his may turn out in the long run to be mistaken and his inclination to bid 'a movement' stand and deliver that he may see its permanent and durable qualities decline into mere obstructionism. On the other hand, he may prick a gaseous bubble of reputation and unmask the kind of charlatan who does the artist so much harm by assuming his name. In that case, you may say, he is not a Philistine. Perhaps not; but he is certain to be called it."—IVOR BROWN in the *Manchester Guardian.*

§

"To the disappointed expectation that blames the architectural education of the universities for not producing more genius, we might say that if these schools do not destroy such genius as may honor their portals, they do very well. They exist to enlighten such as enter on the principles of art in general and of architecture in particular, and set them on their way with a reasonable technical equipment for earning their living in the world as it is, and in numbers not in excess of the demand. It is also the function of the university school of architecture to discourage the inadequately gifted. On the other hand, the sacrifice of the interest of the general body of students to the few of marked talent is not in the competence of the university school. Institutions consecrated to such a purpose do exist outside the universities, and the world is the better for them....What the practical provides is the raw material—cells of certain shape, size and structure, functionally related, to be arranged, distributed, counterposed, and so become eloquent in form. The architectural problem is ever solved in terms of engineering, or pure design-synthesis of function, material and process—before it is the raw material for artistry. If such a discipline is to be imposed in the training in design a little philosophical study will be helpful in opening the student's mind to its acceptance."—PERCY E. NOBBS, (Professor of Design, McGill University), *Journal R. A. I. C.*

§

"To make an attractive design of the present hour or day is one of the rarest creative powers. But all men are artists in looking back on the past. How free and imperious then becomes the imaginative will, blocking out what spoils the composition, deepening the color here, adding a high light there, suggesting and repeating some wished-for condition until it exists, gathering life of its own, like one of Pirandello's characters, and growing unmanageable and riotous. It is in late middle age that this glorious fabric of the past is at its strongest and brightest. Time is needed to weave it—time, and enchanting distance.

"A man may well value a mind furnished with the joys and delights and the sorrows and griefs of the past, even down to the skeleton in the cupboard. No assurance scheme can provide him with this, for, as Masefield shows in one of the best and sincerest of his short poems; the odds and ends of experience, rather than the obviously important incidents, make up life for us. We have no choice in the matter. Some rare and untellable sensation of life experienced while running down a garden path past a clump of golden flowers at the age of ten years, will persist in the memory when the various events in a man's mind when he talks vaguely and admiringly of 'seeing life' (often a synonym for seeing death) are forgotten."

ANONYMOUS, *Manchester Guardian.*

Steel Houses

The history of housing and of housing bills has produced nothing more melancholy than the steel house which is proposed for the English country-side, briefly touched upon by our London correspondent in a late issue. One can hardly believe that in the land where building traditions have stood high for centuries—where the charm of the countryside is not exceeded in any other pastoral land, that rows of stamped steel houses are the only answer that can be made.

Some of the houses have been built. There have been bitter protests. There have been quarrels with the trades unions. There has been a commission of inquiry, which

found against the trades unions, who had demanded the same rates of pay as for skilled labor. But the steel house needs little skilled labor. It has been indorsed by the government on the very ground that it does away with skilled labor. It is the deadliest blow ever aimed at the building trades, but when skilled labor is gone, then what?

I can think of nothing better than Mr. L. P. Jacks' essay on *Government by Talk,* and from it the following is taken:

"In a recent debate in the House of Commons—that speechmakers' paradise—the word *'Labour'* was mentioned thirty-seven times. But in what sense? Only in the secondary sense of an electioneering interest, or vote-capturing candidature for power, levying war upon 'Capital.' But of Labour, in the primary sense, as the grand field of Excellent Performance, as the source of human perfection, as the one patent of nobility and the passport to all that gives value to life, no faintest conception seemed to have entered the minds of the speechmakers on either side.

"The secondary issue has extinguished the primary. Was there ever such a tragedy?

"Not that the Labour Party is to be blamed for it. Blame rather those forces which have turned the currents of human culture in another direction, into faith without works, into knowledge without art, leaving Labour bereft of joy and with no hope in this world but higher wages and 'improved conditions.'

"Our next sidelight is furnished by the phrase just quoted. If there is any tag in existence which deserves to be called the 'winning tag,' we surely have it in 'improved conditions'—better houses, better food, better clothes, and so on through the familiar list. Now, 'getting down to cases,' as Mr. Babbit urges us, or 'letting our consciousness play freely round the facts,' as Matthew Arnold has it, or 'looking into origins and issues,' as Carlyle would say, is it not obvious that these 'better conditions' mean ultimately nothing less than better *things,* better goods, better articles, better service? Not one of which can come into existence except through the determination, on the part of those who create them, to *make* them better. Is it not obvious that we can never talk, legislate, or police these *things* into being, and that so long as we harbour the delusion that the business can be done in that manner it will never be effectively done—though everybody agrees that it must be? If we are to have a better house somebody will have to be a better builder. If we are to have a better dinner, somebody will have to be a better cook. If we are to have a better coat, somebody will have to be a better tailor. What, then, is the outlook, if along with the portentous increase in the 'Bills' that promise us these better things, there be a decrease in the better builders, better cooks, and better tailors who alone can create them? What if fifty millions of them are being underfed and twelve millions have been slaughtered, and in one country alone two millions are out of work? The outlook is that we shall be disappointed as continually we are. We cry out for more houses, for example, and presently more houses, though not enough of them, begin to appear. But many of them are jerry-built and made of shoddy material, and will be slums in another thirty years. The whole procured at an enormous and fraudulent cost which falls ultimately on the very people whose conditions we are trying to improve. Meanwhile where are the better builders? They are not forthcoming, and all we can think of, to take their places, is a better 'Bill.'

"'No, my long-eared friends' (Mr. Jacks here imagines Carlyle to be speaking), 'improved conditions are not to be had in that way—enchanted multitude that you are! That way lies the road to the bottomless pit! It is one of the marks of a civilization whose faith has drifted in one direction and whose works in another, till culture and labour have lost their natural relationship, that 'more' and 'better' are taken to mean the same thing. By this fatal confusion the 'better' is ruined, the 'more' gradually converted into the 'worse,' like a depreciated currency, and we draw nearer the bottomless pit escorted by 'Bills.'"

Out of the tangle the dreamer looks forward—how far he could not say—to a time when the technicians and the workers shall have learned to interweave their functional relationships in a plan for the production of really better things, with the consequent restoration of that respect for tools and materials which has all but vanished as the workers herd themselves into bands and try to practise, crudely withal for they are but novices, the game of price protection which they have learned, after all, from their masters. The fear of an abundance of skilled workmen is just as great to the workers as are the fears of business men of too much of any commodity. Over-production, which produces lower prices, really means under-consumption, for while the world could use all the good things that could be made, there is at present no way to bring such good things plentifully into existence. We ought to be willing to face the situation (it has been very plainly described in the reports of the Housing Commission of the State of New York, referred to in a late issue), for steel houses might be our own problem in the not far distant future. C. H. W.

Commonsense and Idealism

While he was doing the odd things that a dentist does when his patient is gagged he told me of his experiences with building trades workmen. It was the oft-told tale of repairs and renewals; a little carpentry, a little plastering, a little plumbing, a little painting. We were coming to a pretty pass; they were an inefficient lot; they loafed; they were clumsy workmen; and the plumber, in order to make way for his pipes, had cut the joist square off! And they came in their cars—he spoke of well-known high-priced makes. What wages! He had been charged by the plumber, who sent the journeyman, about as much per day as *he* got per hour. They took no pride in their work. That was the basic trouble.

I had just come from a meeting of the board of direction of an enterprise engaged in building where the purpose was to produce a group of structures not of the highest type—not, to be fair, of the better type, but a group of structures far superior, in point of execution as well as in point of other qualities, to structures built

for the same purpose by speculative builders. To do something superior in all respects to the vast majority of structures used by the common man in our metropolitan areas was the aim of the enterprise.

Naturally such an aim drew to the enterprise other than those who were solely concerned with quick turnover and profits. Good intentions animated what was being done. But good intentions, such as these, had of course to be tempered with the exigencies of the situation. It was a case of using so much of technical knowledge as could be used without risking investment. It was a case also of doing the thing as well as it could be done without increasing the cost appreciably above that of the speculative builder. It was a case of sailing the ship of good intention between the closely bordering shores of habit and tradition against a stiff breeze blowing cold out of financial exigencies.

So, when the point came up as to the advisability of giving one of the Craftsmanship medals instituted by the local Building Trade Congress it turned out to be a question subject to debate much to the surprise, I suspect, of the well-intentioned gentleman who proposed it. On the face of it this seemed like a good thing to do. Surely it would stimulate many of the larger number of workmen to put forth their best effort and so gain recognition. And it would no doubt result in better building, which was an objective. Yes! On the face of the first returns of the discussion this was a promising move. But there was more to the question than that. The builder, a man of culture, the product of one of our great eastern universities, saw more than the objective of the enterprise, more than the wish to build well and encourage craftsmen. All things it seems are to be treated under the new theory of relativity. The aim was not well building—it was well building within narrowly confined limits. It was obviously a case where good intentions had to be diluted: the ideal is a matter subject to the law of relativity. Even perfection—that falls within the application of the new theory.

No! it would not be advisable so to encourage well building. With such an incentive the workmen would proceed to take pains—they would try, as best they knew how out of their limited experience, to do a good piece of work. That would take time, time would cost money. The enterprise would fail by reason of the higher cost of following such encouragement. Obviously there was nothing in that, it was idealism.

Here was a point of view which drew its support out of enlightened commonsense as it runs in our time. There is no denying that. To encourage good workmanship and so well building and by so doing raise the cost beyond the reach of those for whom the project was being produced. That would not be commonsense; and that would be to ride idealism to a fall.

Good workmanship—well building—idealism! Never before have I been so impressed, so profoundly impressed, with what constitutes the enlightened commonsense of our time. Was there ever such nonsense, such perfect 100% nonsense? There was not. Why in the name of commonsense should good workmanship and well building, when it is viewed simply as an aim, be dubbed, in disparagement, idealism? Why should he who would build well be called an idealist?

The answer to those questions might be discerned in the course of more than one excursion into unrelated fields of interest and activity. But one will suffice to hint the answer—the same answer that would, no doubt, follow inquiry along other lines. And one may simplify without the least risk of over-simplification. Good workmanship—well building—comes into the case as an item of idealism rather than an item of commonsense for the simple reason that the realistic aims of business, which serve to animate the modern scene, are completely alien to these two qualities of action. Good workmanship and well building are qualities still in demand. But it should not be overlooked that they are in demand for reasons that lie completely outside the field of individual creative action. They are demanded for purposes of consumption and conspicuous display. They do not directly serve the ends of business and finance, the central interest of modern life. The world of business and finance views well building and good workmanship with a tolerant attitude only when the outcome of such activity may be expressed directly in terms of dividend and profits. The world of consumers is tolerant of good workmanship and well building only when the qualities which adhere to the products produced under such auspices may be used to advance one's social status by expending something above the average. But here tolerance gives way in the face of a substitute that will "pass." Perhaps a realization of this fact would help us all to understand the influence of what we call "commercialism."

Activities which run to no renumerative end, either in the sense of pecuniary gain or gain in terms of social status are, under a business-like handling of the facts, gratuitous activities. There is simply no sense in them. Something like this I said to my dentist when he ungagged my jaw.

RICHARD WALLACE TUDOR.

The New House Office Building

Washington, D. C.

The Allied Architects of Washington, D. C., is engaged upon preliminary studies for the proposed new office building for the House of Representatives. West of the present offices and south of the capitol building, the site offers unusual possibilities for a notable contribution to the existing group. Rich as the hill is in history and tradition, it is equally significant because of its place in the general plan of Washington, and the Allied Architects may be congratulated in having for its first project one of such worth and magnitude.

Organized about a year ago and incorporated last spring, this new organization for collaborative practice has found from the start a ready support from the local profession and generous advice and help from the older allied organizations, notably that of Los Angeles. The objects in view may be understood by quotation from the by-laws: "The paramount purpose of the corporation

is to advance the art of architecture, and by professional coöperation and collaboration, to provide building projects with the highest type of architectural service as well as to furnish architectural assistance to architects who are stockholders of this corporation."

The program for the first preliminary submission of sketches invited solutions along three general schemes to meet the requirements of a building to contain offices for 265 members of Congress. The drawings were invited at small scale with emphasis placed upon practical need and simple monumental effect. The date of delivery was 27 July, after which in true "allied" fashion there is to be consultation and collaborative judgment with a dinner for stockholders and guests. To this judgment and its results all those interested in group practice may look forward with real interest. D. H. S.

Outside Business Factors as Competitors of the Architect

The Architects' Small House Service Bureau as an Answer

[NOTE: The American Institute of Architects, by formal action, stands as the moral sponsor of the Architects' Small House Service Bureau, Inc. Among the membership of the Institute there are various opinions as to whether this sponsorship is in the best interests of the architect or of architecture. The JOURNAL opens its columns to a discussion of the subject and has asked the proponents of the Bureau, as having had intimate experience with its workings, to set forth the case for the Bureau as it appears to them. Likewise it asks those who have opinions, either concurrent or divergent, to state their case.[1] In this manner the entire membership of the Institute may become acquainted with the facts upon which to base a considered judgment.

If the Institute's position is a sound one it should be affirmed. If it is an unsound one, it should be altered.

The three articles to follow this one are: I. HOW SHOULD THE YOUNG ARCHITECT ENTER THE PROFESSION? The Architects' Small House Service Bureau as a Possible Answer. II. HOW SHOULD THE ESTABLISHED PRACTITIONER REMAIN IN PRACTICE? The Architects' Small House Service Bureau as a Possible Answer. III. THE ARCHITECTS' SMALL HOUSE SERVICE BUREAU. How it Gets Business and What it Does. EDITOR.]

SEVERAL years ago the American Institute of Architects was asked to endorse an organization which had been started in the state of Minnesota and which had assumed the high sounding title of the "Architects' Small House Service Bureau." There was some laughter. The backers of the project, however, were allowed a hearing before the proper Committee. When they emerged from conference the members of the Committee were no longer mirthful. They announced that they endorsed the Bureau and that, with assent of the Institute, they would approve its charter. A charter was granted; the nation divided into districts, and a division office made the centre of influence in each district.

Lest these district offices should fall into the hands of the unpracticed, the President of the Bureau, who has since been elected Secretary of the Institute, travelled many thousand miles, interviewed architects in the various parts of the country, talked to them, explained the Bureau, organized them into districts. The writer was present at the meeting held in New York City at which the pros and cons were discussed. There were many silly and some very sensible things said on both sides. The argument ran something as follows:

The Argument Contra

1. If people should find they could buy cheap plans for small houses they wouldn't be willing to pay the architect's fee for medium sized or even large work.
2. The Bureau would compete with architects.
3. The Bureau was taking the bread out of the mouth of the "small architect."
4. The Bureau would make it impossible for young men to "get started."
5. The "standardization" of homes would be undesirable.
6. The idea was un-American.
7. The whole project was too likely to be commercialized.
8. It was a bad influence generally.
9. It was especially bad for architects to sell plans to be "used over again."
10. It was too commercial for architects to "coöperate" with lumber companies or other material people in selling books of plans.
11. The architect's life was said to be hard enough anyway without adding further complications to it.

The Argument Pro

1. That some of the large lumber companies were offering free plans for those who bought their lumber.
2. That such practice in the past had been totally unregulated, and if extended to larger houses, would threaten the architects' business.
3. The Bureau, under the control of the Institute, by developing a high standard service of good plans, could regulate the quality of the plans offered by material people.
4. The practice of material dealers of supplying free plans might be gradually lessened if the Bureau exercised a dominating position.
5. Architects have not usually been retained for small six-room houses, the largest size allowed to be handled by the Bureau.
6. Not more than 20% of small house work has been handled by architects in the past.
7. The Bureau might actually increase the contact of the small home owner with architects.
8. The Bureau might prove itself invaluable in educating the public and in training its taste toward the appreciation of good architecture.

[1] See Letters to the Editor, p. 311.

9. Through the association of architects on committees the Bureau may help in the training of young architects.

10. The increased consideration given to the study of the small house will actually improve the present standards and advance its development beyond the limits attained by the individual architect working on a slender economic margin.

The proponents of the Bureau may have been dreamers and visionaries, but at least they furnished the more interesting side of the argument. The opponents apparently based their objection on fear. With the growing influence of the Bureau some of the original opponents have renewed their criticisms. Now their claim is that the Bureau is "stealing" their business. One of them within the writer's hearing recently exclaimed that it was impossible for any architect to object to or criticize any of the wretched plan services which are still being put out because the Institute itself is doing the same thing.

A criticism of this type reveals not only unfamiliarity with the thing criticised, but in addition the shocking ignorance on the part of practicing architects of the alarming situation which confronts the profession. There is a misunderstanding generally on the part of professional men in regard to their relation to the community. Even if the world does "owe them a living" it hasn't granted them a permanent and exclusive monopoly in all things pertaining to their profession. Laymen are prohibited from practicing law and medicine not because it is the lawyer's and the doctor's right, but because the ignorant layman is likely to make serious mistakes which the trained practitioner will probably avoid. If the service at present performed by architects can be better performed by some other means, then it is the architect's fault that he did not make himself more worthwhile.

It was the recognition of this danger that furnished the impetus that led architects to back the Bureau as the best means for furnishing a service that was needed. It is a pity that it was not founded 25 years ago. Whether the architects of that day were equipped to man it successfully will never be known; had they been able to, it seems probable that they would not today be faced with the growing competition of outside business factors and the lack of understanding on the part of the public.

Just what are these outside business factors? They ought to be better understood.

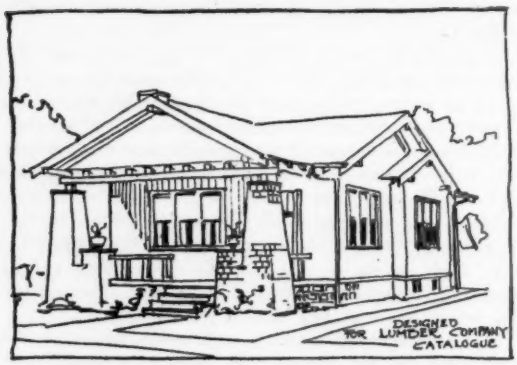
In the first place, *most owners of small homes do not build.* They buy a ready-built house, which means that they purchase a ready-made article from promoters or contractors who make a business of building to sell. It is a keenly competitive field, economies must be effected, corners must be cut, costs have got to be kept under control. Whatever the public demands is going to be put into this type of house, because it will sell the house. No money is going to be spent on those things to which the public is indifferent because it will add to the cost without making the house a more attractive "buy." The average small house owner is not renowned for his good taste; he is only just beginning to realize what is meant by "economy of plan." To satisfy this type of customer the speculative builder does not need the services of an architect.

Hence the architect, in the small house field, finds that the public has a large supply of ready-made houses from which to choose. Few architects have made themselves masters of the "art of building for sale." Therefore from a point of view of selling cost they cannot compete with the speculative builder. The architect has neglected the education of the public so that what most architects are equipped to give is not sought for by that same public. Hence the architect often finds himself a mere drug on the market, and he rants about competition and cost cutting, when it is his own shortsightedness which has kept him out of the running.

The large number of ready-made small houses on the market has not only lessened the number of small home builders to whom the architect can turn for business, but these houses themselves have been built under conditions which have ruled out most architects. There have been isolated attempts by individual architects to enter this field. Occasionally speculative builders "get an architect" to make some drawings for them. This is more customary where plans have to be filed; it is cheaper to hire an "archy-teck" to do that little piece of work than for the builder to spend time on it himself. Many builders particularly after they reach the stage where they are "swinging" fifteen or twenty houses at a time find it more economical to keep an "archy-teck." Sometimes this is done on a percentage basis; I know of a case in which 1% was paid; more often it is on a rate per house, say $50 to $100. Frequently the "archy-teck" is put on a salary, which may range from $50 a week up to a contract of $15,000 a year. Many large building concerns which have progressed beyond the small house stage feel that it is worth while to have an architect in their organization.

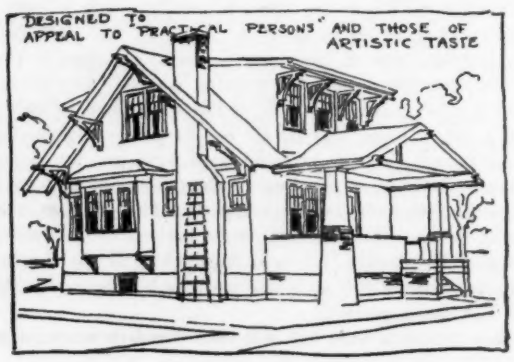
How do architects feel about this? Do they take it for the compliment that it is? What attitude does the profession as a whole take? What policy is being developed to answer the need that is very definitely expressed? The profession in general doesn't realize that it is interested. There are spasmodic protests against price cutting on the part of architects. Men who "sell themselves" for a salary or who sell their plans over the counter, so to speak, are looked at askance, because "such practices interfere with legitimate business." I suppose that if a man goes to an architect and places himself in his hands and offers to pay 6% without knowing anything of the integrity or ability of that architect, nevertheless that is legitimate business; whereas, if the same man had gone to a building company for whom six months earlier the same architect had been working on a salary basis, that would not have been legitimate, even though the man actually could have had his house cheaper because of the large scale purchasing and constructing methods of the company. If architects are going to argue that it is illegitimate business for an owner to pay less money for something that, so far as he can tell, seems just as good, then architects are going to lose the argument.

But architects have had still more ruthless competition



to meet. Go into any really small town. It probably does not support an architect. There are usually several men who do buildings, all of them continually busy. Their contact with the outside world is through the houses which supply them with their materials. Progress and better standards reach them through these sources. Most reliable and handiest have been the lumber yards. When the local carpenter is stuck with a problem he goes to the lumber people. It is natural. He buys of them. They are dependent one upon the other; either is glad to do a favor for the other. If it helps their carpenter customers why shouldn't the lumber people carry ready-made plans in stock? Why shouldn't they be willing to give sets free to men who buy their lumber? According to the lights of the people who use them they are "handy plans and very pretty too." They were needed and had to be supplied. It was a compliment to the social need of the architect, but until the Architects' Small House Service Bureau was founded the profession absolutely ignored the existence of this demand and allowed it to be filled through natural channels hit or miss.

The success which some of the lumber companies have had with their "plan books" has led various material people and manufacturers also to put out books. Of course at the outset they got their copy from the cheapest available source, and in consequence the time spent on the study of designs was at best fleeting. It was the large increase in the production of this type of book that suggested that some agency controlled by the profession



take the matter in hand. In the West the number of houses actually constructed from these nightmare designs increased to such alarming proportions as to threaten to throw architects into the discard, leaving public taste perverted and uncared for.

It was in self-defense that the architects of the Northwest organized the Architects' Small House Service Bureau. As a defensive measure, and as one recognized as necessary for the public good, it received the backing of the Institute.

There have, however, been loud protests which have re-echoed the sentiments expressed when the subject was originally broached. Perhaps the loudest protests of all have come out of the state of New Jersey. Notwithstanding this there are being circulated today by lumber concerns within the Newark and the metropolitan district adjoining New York plan books which are perhaps the worst as to design which have ever been circulated anywhere. Within the front cover appears the following legend:

"Blue Print Working Plan—

> for any of the Homes illustrated is without charge, when materials are purchased from our Company. Should you desire any changes made from the original plan, to incorporate your own ideas, the same may be made at actual cost."

On each page appears a small perspective usually done in color to add to the horrors of the design. It would be impossible to reproduce them in the staid pages of this journal in all their beauty. The accompanying set of thumb nail sketches, however, will give some idea of the crudities of the design.

To sell these ill-begotten sketches there is included a small legend which is run alongside each sketch plan. These are couched in terms of mock patriotism and would make the credulous homeseeker believe that it would be practically a crime against country and morals if he denied his family the joy of living in the house illustrated. Here is a sample:

"National equality and rights of men, as men and citizens depend entirely upon national integrity, which is in itself founded firmly on the home. Children seldom become burdens in society whose home life has been that of happiness and contentment. This beautiful bungalow is an ideal selection of a home for loving parents who show their children the way to happiness and right living."

Arthur C. Holden.

Education

The Carnegie Corporation, in recognizing the work of the Committee on Education, and in order to encourage it, and without any solicitation on our part, has made a grant of $5,000.00 for use in promoting the appreciation of the Fine Arts. After submitting a number of plans the Corporation agreed that the course of instruction which we have given as a sort of summer school was by far the most effective way to use this money.

The arrangement made with the colleges was that they were to select a competent teacher of art who would

come to Chicago and take this one month course of instruction. In return for this, the colleges have agreed that next fall they will give this same course to their students. Ten colleges were selected largely in the middle part of the country, and they were very enthusiastic about it and immediately arranged to send on their representatives.

The Art Institute of Chicago was likewise much enthused over the undertaking and has practically turned over the resources of the institution, together with some of the best teachers, to these visiting representatives of the colleges.

A special feature of the course is that some of the best instructors in art have been engaged to give it, and also that the services of some of the practicing artists who could not ordinarily be secured for such work have generously and freely been offered give the benefit of their practical knowledge and experience.

The course is now under way—the colleges are fully represented, and the work is progressing splendidly. When it is completed, each college representative will be supplied with a set of lantern slides and books, together with notes, lectures and data. With these they will in turn give this same course to their students for one year, beginning next fall. In this way, we are able to reach an audience that will probably be composed of thousands of students. The plan has never been tried, but we believe it the best method yet tried for including in the education of college students, generally, a proper knowledge of architecture and the other arts.

The program is appended:

Program of a Course in the Appreciation and understanding of the Fine Arts for College Instructors, 22 June to 18 July, inclusive. The Art Institute of Chicago, Charles Fabens Kelley, Instructor-in-Charge.
Monday, 22 June—Introductory Lecture.
Monday, 22 June—Color, Walter Sargent, University of Chicago.
Tuesday, 23 June—Different Types of Pictures.
Wednesday, 24 June—Composition in Art.
Thursday, 25 June—Gallery Talk.
Friday, 26 June—Media and Technique.
Monday, 29 June—Art of Egypt.
Tuesday, 30 June—The Development of Greek Sculpture.
Wednesday, 1 July—Gothic Cathedrals.
Thursday, 2 July—Gallery Talk.
Friday, 3 July—Renaissance and Modern Sculpture.
Monday, 6 July—Raphael and Michelangelo.
Tuesday, 7 July—Rembrandt and Rubens.
Wednesday, 8 July—Prints and Drawings.
Thursday, 9 July—French Impressionists (Gallery Talk).
Friday, 10 July—Contemporary American Painting.
Monday, 13 July—Chinese Landscape Painting.
Tuesday, 14 July—Some Things Which Everybody Should Know About American Architecture, by G. C. Nimmons, Chairman of the Committee on Education of the American Institute of Architects.
Wednesday, 15 July—What Everybody Should Know About Landscape Gardening, by Ralph Rodney Root, Landscape Architect.
Thursday, 16 July—The Chicago Civic Plan.
Friday, 17 July—The Ultra Moderns.

G. C. NIMMONS, *Chairman.*

Letters to the Editor

Are Competitions for Architecture or for Architects?

TO THE EDITOR OF THE JOURNAL:

Fresh from the result of three visits to the drawings submitted in the competition to select an architect for the Theodore Roosevelt Memorial to be built on the grounds of the American Museum of Natural History, New York City, I wish to ask the architectural profession, which I take to be represented by the American Institute of Architects, this question: What does the profession propose to do by way of providing some method of choosing an architect, for public or semi-public work, that will be fair, inexpensive and which will have for its object the liberation of genius toward the advancement of architecture?

My question may embarrass the editor. Let me hope that my purpose will outweigh all other considerations. I use the Roosevelt competition because it is not only fresh but it has one emphatic particularity. Evidently the writers of the program believed, as do I, that associative ideas are expressible in architecture. The program specifically states that what is desired is a memorial to Theodore Roosevelt, naturalist and scientist. It goes to meticulous extremes to say that it does not want a memorial to Theodore Roosevelt, statesman and literateur. Is it fair to conclude that this evidences a belief that such differences in associative ideas are expressible in architecture? That someone believed that architecture is a living art capable of setting forth the difference between a naturalist and a statesman? Why else this particular care in writing the program,—this iterated caution to the competitors?

What happens? The jury selects an architect who submits a design that has no more to do with Theodore Roosevelt, naturalist and scientist, than has the Opera House at Paris. And, by all the troths and halidoms that men have ever sworn by, the jury selects an architect whose design is eloquent of Theodore Roosevelt, statesman at least and possibly literateur. Even worse, if worse there may be, the design is plainly the embodiment of imperialistic symbology. Linnæus, Fabre, Audubon, forsooth! What we are to have is Nero, Alexander, Hannibal, Scipio Africanus, if you will. I challenge the whole profession to disagree, if architecture expresses associative ideas. If not, there is no argument and we may contentedly assume that a memorial may borrow its associations where it will. Our only task will be to give it a name. But I do not think this is so.

Neither do I think that the Institute Competition Code means what it says. It is not used to select an architect. A building is always what is chosen and the architect is thrown in. The rules ensure that, of course, but what chance has architecture in that sort of game? Has a genius, striving not to produce an academic design but to express one or more associative ideas, any chance of being chosen by a jury? The Nebraska Capitol was an exception, I will admit. Here was a great and brilliant idea in American architecture. It won, as it deserved to do. The idea was in a class by itself.

But in the Theodore Roosevelt Memorial competition there was also a great idea. There was a set of drawings that indicated that the designer knew something of associative ideas. Foolishly, he must have believed the program, whereas his competitors chucked it, insofar as that element was concerned, and went in for what they thought would win from the jury they had to deal with. No other conclusion seems possible, even though it may be difficult for architects to see clearly in these matters, since like all other professions their view of the general welfare is intercepted by the screen of their vested or proprietary interests. But the fact remains—and many similar ones could doubtless be cited—that in the Theodore Roosevelt Memorial competition the design which exhibited an intelligent understanding of the program, which was almost as exquisitely rendered as the winner's (one of the most beautiful that ever graced a competition), was passed by, and another chance of advancing architecture in America was thrown to the winds. For even though the design of which I speak was not wholly acceptable to a jury, the competition was to choose an

architect, was it not? Not a building. An architect—one who had an intelligent understanding of the problem of designing a memorial to Theodore Roosevelt, naturalist and scientist. Of expressing that purpose in architecture. But it seems that neither the competitors nor the jury paid any attention to this requirement. All played safe, save one. He lost!

What can be done? Why not some way whereby genius may have its chance? I have slowly come to the conclusion that the Competition Code of the American Institute of Architects is the most deadly instrument ever contrived for sacrificing architecture to the interests of architects.

"Like Plato and Bernard Shaw," if I may quote for a moment, "I believe that art is a matter of public hygiene, that it can save and scourge, and cleanse and kill. If art is no more than a hole-and-corner game carried on by specialists for specialists it is a very small matter. If it is a spur of conduct, at once the fount and the reflection of social energy and enjoyment, then the great artist is the owner of unlimited dominion." Is the artist getting his chance in public architecture in the United States? Does history affirm that competitions have produced a deal of great work? Is competition under the rules of the Institute the best that can be had? I do not nod my head joyfully as someone suggests doing away with competitions, —that is,—not unless there is to be provided some way for the liberation of genius in these cases. It is ridiculous to say that any good architect will do. He will not. Business and commerce may buy architectural service by direct selection, and get what they can, and the public shall take the consequences as it does, without much rebellion up to the present time, but in the matter of public work and certain forms of semi-public work, the public has the right to buy genius freely, and it has the right to expect that the American Institute of Architects will help it to find that genius through which alone architecture can ever take a step forward. Or has it no such right? And is it at the mercy of the Institute?

We want competitions in genius. How can they be had? I have heard it suggested that there be no more submissions than a written statement of the concept of the designer, illustrated with small sketches. That sounds promising. For even though some inexperienced genius might thus come into his own, experienced assistance in execution could be supplied, could it not? But let us have other suggestions. Let all participate in an effort to clear up a situation which, however satisfactory it may be pecuniarily to a certain class of architects, is getting worse and worse for architecture.

J. RANDOLPH WILTS.

The Small House Service Question

TO THE EDITOR OF THE JOURNAL:

As I believe that the columns of the JOURNAL are now open for a discussion of The Small House Service Bureau Idea, may I offer the following?

From time to time I hear that some prominent member of the Institute has expressed a doubt as to the wisdom of the Institute's moral support of the Small House Service Bureau; or I hear that this or that architect thinks it outrageous that the Small House Bureau should undermine the practice of the small-town architects. Recently I heard a member of a Registration Board say that he thought the Small House Bureau was taking away from the beginner in architecture his only opportunity to get started in practice.

All of these comments come back to me with particular force just now because I happen to have seen a copy of what appears to be a "syndicated" book apparently sent out by the Lumber Company, containing 112 designs of small houses of such a general character that my mind is filled with sorrow and my system with violent indigestion. This book states that the company will supply working plans of any house there shown without cost, provided that it sells the lumber for the house. It offers to make necessary alterations in the typical working plans and specifications at a minimum cost and to supply free estimates of cost to anyone requiring the service. In the whole collection of 112 designs there are possibly three that are bearable. The rest are, to my mind, deplorable examples of just the sort of thing that our own Bureau is making every effort to replace.

Now, with the columns of the JOURNAL open to a fair discussion of the purpose of the Small House Bureau, we may be able to inform ourselves all round. Let us hope that there will be a statement, carefully and succinctly presented, primarily from the point of view of those who have worked in it and are best qualified not only to state its intent, but also to report on its results. I am so completely convinced of the manifold merits of the Institute's Small House Service scheme that I desire to see only the one-sided criticisms of this excellent effort that are contained in letters published in many of our architectural periodicals. Our own JOURNAL will naturally not exclude fair criticisms of what is being done, for there is plenty of room for improvement. At least now at the end of our first five years of operation a careful statement should be made of the purposes and the attainments of this Small House Service scheme which I consider the most public-spirited effort the Institute has ever encouraged.

G. W. R.

Interprofessional Coöperation

TO THE EDITOR OF THE JOURNAL:

Despite the fact that you have no "funny page" in your magazine, don't you think the inclosed letter worthy of permanent record in its pages? It is a letter from a banker who has employed architects of supposed standing from time to time, which makes one wonder if, in the interest of a noble profession, they accepted service under similar conditions. After much amused reflection, it seemed too subtle a job to pen a fitting answer, so with its receipt the correspondence ended.

W. R. B.

Dear Sir:

The Reverend ———, who is a brother-in-law of the writer, mentioned your name to me as having served as an architect on his house in ———.

My sons will build two houses beginning in March or April. They will be two stories high with basements. The sizes of these houses are as follows:

One, 32 by 44 feet.

One, 30 by 40 feet with sun porch added 1 story high.

The floor plans are already correctly drawn subject to such necessary changes in the location and sizes of windows and doors as will be desirable to accomodate the elevations as may be determined upon, each to be Colonial in design.

I will require the service of an architect to design and draw the elevations, the full size details both inside and outside, and the interior scale details.

The specifications I will prepare myself which will cover all the work including the plumbing, heating and electrical fixtures. I will also take care of the architectural supervision during construction.

In a general way will say that I will want all work kept as plain as possible consistent with good effects.

In order that there may not be unnecessary redrafting the owner will be personally in consultation with the architect during the time he is designing the exteriors and such further time as will be necessary to advise with the architect regarding general designing of the interior effects.

Under these circumstances please name me a lump sum price for the architectural work above outlined, for both houses, and for each singly.

P. S.—I might add that this letter was addressed to an architect whose office was three hundred miles distant.

Institute Business

Applications for Membership

29 July, 1925.

TO THE MEMBERS OF THE INSTITUTE:

The names of the following applicants may come before the Board of Directors or its Executive Committee for action on their admission to the Institute and, if elected, the applicants will be assigned to the Chapters indicated:

ARKANSAS CHAPTER: William Dill, J. J. Haralson, E. C. Nelson, John Reginald Petter.

BOSTON CHAPTER: Chester Lindsay Churchill, John Howard Stevens.

CLEVELAND CHAPTER: J. Byers Hays, Rowland M. Johnson, Harold Parker.

FLORIDA CHAPTER: Marley White Lethly.

GEORGIA CHAPTER: Whitley L. Ewing, Philander P. Scroggs, Cyril Bransgrove Smith.

LOUISIANA CHAPTER: Henri Mortimer Favrot.

MINNESOTA CHAPTER: Walter Thomas Rolfe.

NEW JERSEY CHAPTER: J. Harman Harvey, J. Osborne Hunt, Warner Hurley Jones, Herman L. Mack.

NEW YORK CHAPTER: Paul R. Allen, Charles G. Anderson, Lewis Bowman, Howard Chapman, Leonard Cox, J. Andre Fouilhoux, Thomas L. Gleason, Harry B. Mulliken, Wm. Lee Stoddart, Wakefield Worcester.

NORTH CAROLINA CHAPTER: James De Loi.

PHILADELPHIA CHAPTER: Victor Darwin Abel, Howard D. GaNung, Francis A. Gugert, Watson Keyser Mawley, Richard Wesley Mecaskey.

SCRANTON—WILKES-BARRE CHAPTER: Fred J. Mack, Frank B. R. Sahm, Albert J. Ward.

SOUTHERN CALIFORNIA CHAPTER: Harold G. Spielman, Harry Kenneth Vaughn.

TENNESSEE CHAPTER: Everett D. Woods.

WASHINGTON, D. C., CHAPTER: Laurence P. Johnson.

You are invited, as directed in the By-Laws, to send privileged communications before 29 August, 1925, on the eligibility of the candidates, for the information and guidance of the Members of the Board of Directors in their final ballot.

No applicant will be finally passed upon should any Chapter request within the thirty day period an extension of time for purpose of investigation.

EDWIN H. BROWN, *Secretary.*

Industrial Relations[1]

On page 316 of this issue appears the full program of the competition for small house designs as instituted by *McCall's Magazine* under the direction of Miss Marcia Mead, A.I.A.

The author of the design placed first will receive a prize of $1,000. The second prize will be $500.

Argentina

El Arquitecto, a publication issued monthly at Buenos Aires, Argentina, announces that the Third Pan-American Congress of Architects will be held in Buenos Aires, in 1926, the exact date to be announced.

A glance through that excellent publication presents a picture of the composite population of our sister republic. We find that the population of Spanish ancestry adopts the afflatus of the mother country in design; the author is usually of Spanish descent. The larger Italian element is distinctly represented in the adoption of the forms of the Italian Renaissance with a maximum of florid ornamentation. The British influence is shown in the classical revival, particularly as evidenced by the public buildings.

The list of awards of prizes at the last Pan-American Congress reads like a roll call of the NEW YORK CHAPTER of the Institute. The April issue of *El Arquitecto* is largely given to illustrations of the Temple B'nai Abraham at Newark, New Jersey, a work by Mr. Nathan Myers; but France is not forgotten, and details of a salon at Fontainebleau, drawn by C. Hamilton Preston, are well presented. Gothic as applied in Spain is discussed at length—monastic civil and military. We pass from Spain to Hungary, thence to country residences in the United States, and at the end, land in a "model bedroom" reprinted from *Good Furniture.*

W. P. B.

A New Mayan City

A recent issue of the *Manchester Guardian* chronicles the first brief reports of the work of a group of British scientists in Honduras, as follows:

"A cable from Jamaica states that Mr. Mitchell-Hedges, the explorer and deep-sea research expert, and Dr. Gann, the archæologist, have returned from their expedition a year before they had planned; this is due to the fact that such discoveries have been made in the ruined Maya city in the heart of British Honduras that it is necessary for the explorers to confer with the British Museum authorities, who are giving them official support.

"They have discovered the greatest single ancient stone building in the world, and have uncovered a gigantic ruined city totally unlike any previously discovered. Among other discoveries is a gigantic amphitheatre, built of solid stone and capable of holding 10,000 people. It is the first and only record of such a discovery throughout the whole of the American continent. On two sides of the arena were great cut-stone terraces, while east and west were stone pyra-

[1] The reader's attention is called to *Are Competitions for Architecture or for Architects?* page 311.

mids, which undoubtedly represented 'grand stands' from which personages of high rank could look down on what was taking place in the amphitheatre.

"Mr. Mitchell Hedges said they had made important discoveries, including what was undoubtedly the greatest aboriginal stone building ever discovered on the American continent. It covered an area of 7.65 acres. The building was composed of millions of cut stones, and when it was realized that the stone must have been quarried and shaped with stone chisels, stone hammers, and stone axes, it was almost inconceivable that men so handicapped could have been able to build such a gigantic edifice.

"Mr. Hedges added that his party had definitely discovered that for sixteen miles around Lubaantun the place was covered with burial mounds and ruins. The population of the area must have been enormous.

"The expedition is reported to be bringing back large quantities of figurines, flint spearheads, and other objects excavated at the ruins of Lubaantun, direct to the British Museum to be investigated by experts. The trio have also collected some extraordinary and abnormal marine specimens for the Natural History Museum, South Kensington, and for other museums."

Notes

AT THE exercises at the School of Architecture, University of Liverpool, 4 July, 1925, Professor C. H. Reilly announced the foundation of a new degree of Master of Architecture. The award of the degree to the first three recipients was forthwith made by Professor Reilly. Two American architects—Harvey Wiley Corbett and Thomas Hastings, R.I.B.A. Gold Medallist—received the degree coincidentally with Professor Stanley Davenport Adstead of London.

CLARE C. HOSMER announces that he has severed his connection with the Martin-Hosmer Studios, Sarasota, Fla., and has opened his own office in the First Bank & Trust Bldg.

ARTHUR L. ACKER announces the removal of his office to the Petroleum Securities Bldg., 14 W. 10th St., Los Angeles, Calif.

From Our Book Shelf

One may be fairly familiar with Westminster Abbey and yet astounded at the wealth of treasure displayed in this volume [1] of the Royal Commission, and at the task that has been performed so thoroughly, and with such painstaking care, by the Commission. This Commission, appointed directly by the King, and with a wealth of beautiful ceremonial words, which we vainly strive to copy in our benevolent orders, was created in 1908 by Edward VII and confirmed by George V. Crawford of Balcarres, who as chairman writes the introduction, was, in the original commission, "our trusty and well beloved David Alexander Edward Lindsay, commonly called Lord Balcarres," but to George he is his "well beloved cousin" . . . "Earl of Crawford" and the work done under his direction certainly justifies the confidence placed in him. The Commission has previously issued a volume on Hertfordshire, two on Buckinghamshire, and four on Essex. This is Vol. I of the series on London. In presenting the report acknowledgment is made, among others, to W. R. Lethaby, surveyor of the Abbey. The position of surveyor means that he is the architect in charge of the structure, and one wonders why Mr. Lethaby is given this difficult and very responsible position. One remembers him in the 80's as a pupil and follower of Norman Shaw and later experimenting in the development of 16th century Gothic. One does not think of him as student of, still less as a designer in, the great periods of Gothic work and certainly the furniture lately designed by him for the sanctuary is neither in detail nor scale suited to its place.

The introduction by Mr. James, Provost of Eton, is brief but admirably put and it gives the main facts about the structure. There was a church here, of Edward the Confessor, in 1066, for William was crowned here, but this building was gradually replaced by the present structure. "Thus the fabric of the church consists of three great sections: choir, transepts and part of the structural nave, built in 1245-69: remainder of the nave, built between 1375 and 1506; Henry VII's chapel, begun in 1503. Add to these the western towers of 1734-40." Repairs and restorations, wise and unwise, have resulted in the complete disappearance of all the original exterior masonry. Work on this was begun by Wren and continued up to the present day. "Externally, then, the church is a copy, not by any means faithful, of the original. Internally, however, it is a masterpiece of the noblest period of Gothic architecture, and a treasure-house of works of art of that and of later times."

The Provost gives a list of the "architects" of the Abbey. Foremost among these is the Master Mason Henry of Reyns 1245-1253 who, with his successors John of Gloucester and Robert of Beverley, is responsible for the building under Henry III and consequently for the rest of the nave, which was carried out in accordance with the design of 150 years before. This was a very unusual thing in mediæval days and one finds it difficult to account for this close adherence to and earlier style unless the original designer built up in effect a school of masons who faithfully followed the master. The great departure from the 13th century was in the Chapel of Henry VIII. Robert Vertue, Robert Jenins and John Lebons are the King's three master masons.

Just what relation there is between a 13th century "Master Mason" and a 20th century "architect" it would be difficult to say. An architect is literally a master builder and as such the 13th century Henry was far more entitled to the name than are we. A Gothic structure is above all else a problem in masonry construction, solved with that perfect beauty that comes from construction thoroughly understood and executed with perfect craftsmanship. The mason who developed the plan of the Abbey saw at the same time its soaring vault and understood what was needed to carry it. He did not, of course, create at one blow a new thing; both plan and section has been gradually developing for 100 years and whether he was a French mason or had worked in France is immaterial, for he certainly borrowed from France the character of the plan and the dimensions of its lofty section. In our sense of the word, he was not an archi-

[1] *Westminster Abbey.* Royal Commission on Historical Monuments.

tect, but in his sense of the word we are not architects, and on the whole his position is the stronger of the two. However, it is useless to argue over the meaning of words. Henry, that 13th century genius, gave us the Abbey and whether "Reyns" is "Rheims" or just an English village matters as little as whether or no we call him an architect.

Henry VII Chapel remains forever a *tour de force* in masonry, marvelous, astonishing, audacious, mendacious, meretricious. Good or bad it is lovely.

It is interesting historically because it is so full of that late rising tide of the Italian Renaissance which at last had reached England. Torrigiani, undoubtedly a master of ornament of the best 15th century period, gave England the delicate detail which had already passed its zenith in Italy; and yet, curiously enough, the Renaissance of Italy was not yet to push Gothic to the wall in England, for Henry VIII's break with Rome broke also this Italian fashion and so for another 100 years Gothic principles in structure and design still held sway and only detail now and then reminded one that the ornament of Italy had been brought to England in 1520. The Italian Renaissance was a wonderful and very unintelligible movement. What bred it? How and why did it so suddenly die? Keyserling,[1] speaking of it says (page 218): "But the facts are beyond question: the great periods of culture, like that of the Renaissance, cannot be explained altogether out of the demonstrable series of causes. They differ qualitatively from that which preceded or succeeded them. They owe their existence ultimately to a spiritual influx which bears unmistakably the stamp of divine grace. Such grace incidentally transmutes all nature. Once its source, however, had dried up, no effort and no talent is of any avail. Since the height of the Renaissance, artistic culture has declined in Italy, in spite of all the geniuses who have been born there again and again, and today the Italians probably possess less creative taste than any other people, although they are still artistically the most gifted."

This revelation of Italian influence in the Henry VII Chapel is interesting, but still more so is the influence of 13th century Italy, brought to fuller light recently by the uncovering of Mosaic, enamel and color on the 13th century tombs. The 13th century retable might have come from San Miniato. The enamel work on the oaken effigy of William de Valence seems as if it might have come direct from France and yet is English in its character. This is dated 1296. The tomb of Henry III is as Italian as anything of the time in Santa Croce. The one great marvel is that so much has outlived the vicissitudes of turbulent English Church history.

The greater part of the volume is naturally devoted to the Abbey itself, but the appanages of the Abbey are also fully reviewed, the cloisters, the Chapter House and the vaults, are of great interest, and the various domestic buildings now in use for the school and for residences are beautifully illustrated. Ashburnham house is an interesting example of complete transformation from the 13th to the 18th century and reminds one of the possibilities of uncovering the 18th and finding the 13th as Harold Peto did in his interesting house (set in wonderful gardens, Peto's work, which I saw in April). The house had been made over within and without in the 18th century, but while making some repairs in a modern drawing room Mr. Peto uncovered and then fully restored a beautiful 13th century room with walls, floor, fireplace and ceiling practically intact.

The Abbey is a marvellous interior, but I think I had never before seen it with understanding until one night after dining with one of the canons we went in about 10 o'clock and saw the mysterious heights and depths illumined here and there as the lights were turned on, supplementing the moonlight that altered through the great windows; a marvellous and mysterious sight. The Abbey is a precious heritage to all English people, and this book, supplementing with its illustrations Dean Stanley's book, is a priceless record.

[1] *Travel Diary of a Philosopher.*

Obituary

Leonard G. Quackenboss, F.A.I.A.

Elected to Fellowship in the Institute in 1889
Died at Chicago, Illinois, 1 November, 1924

In the passing of Mr. Leonard G. Quackenboss, F.A.I.A., the profession of architecture sustained a loss which is especially comprehended by the men who worked with Mr. Quackenboss in the height of his activity some twenty-five years ago. Letters received by the CHICAGO CHAPTER from some of his old associates in the profession indicate a man of great integrity and personal faithfulness, with a high standard in his attention to the performance of his work. Mr. Quakenboss built a number of residences, notably a home for Mr. Henry Botsford at 18th Street and Michigan Avenue in Chicago, and a summer home at Stockbridge, Massachusetts. The Finley Barrell home in Kimbark Avenue near 48th Street, Chicago, is also his work. In recent years ill health had prevented Mr. Quackenboss from pursuing his profession actively, or taking part in Chapter activities.

HOWARD L. CHENEY.

George Edward Harney, F.A.I.A.

Elected to Fellowship in the Institute in 1871
Died at New York City, 12 November, 1924

George Edward Harney, architect of the older school, scholar and practitioner with the highest ideals, was born at Lynn, Mass., 1840. His preceptor in Architecture was Alonzo Lewis. At eighteen he was writing and publishing designs of domestic work of originality and good taste, which attracted a large clientele. In 1873 he published *Harney's Barns and Out-Buildings.* In 1863 he had offices in Newburgh and Cold Spring, New York, in the neighborhood where large estates were building on the Hudson River. Later he came to New York where his clients were of the notable families whose names every one knows. Among his many works are the Mercantile Library, St. Mary's Church at Cold Spring, Lincoln Home and Hospital, the George E. Dodge Tudor House, Tuxedo, Kountze House, Morristown. He was in active practice for fifty-three years, and retired fourteen years ago. He died at the ripe age of eighty-four years.

A Small House Competition

Conducted by McCall's Magazine

10 August, 1925.

To stimulate an interest in the planning and designing of small houses, *McCall's Magazine* invites architects and draughtsmen of the United States to participate in a competition to be conducted in conformance with the following program:

AWARDS. The author of the design placed first will receive a cash prize of $1,000.00. The second prize will be $500.00. The Jury of Award will also select a few designs which may be considered worthy of honorable mention.

DRAWINGS REQUIRED. The competition drawings will be sketches as described more fully in another paragraph. The prize winners will be required to furnish complete working drawings and specifications. See later paragraph.

PAYMENTS. The prize money will be paid as soon as the working drawings and specifications are completed and have been approved by the consulting Architect of *McCall's Magazine*.

JURY OF AWARD. The following architects have been engaged to assist in the conduct of this competition and they will comprise the Jury of Award:

Alexander B. Trowbridge, New York; Edwin H. Brown, Minneapolis; John Russell Pope, New York.

THE PROBLEM. On a level plot 50' wide and 150' deep, it is proposed to build a six room house. The plot is an "inside lot," i. e., it is not on a corner. The front of the house faces toward the west. The street may be assumed to be similar to an average suburban street, 50' wide from curb to curb, with grass plot between curb and sidewalk and another stretch of grass between the sidewalk and the property line. Sewer, gas supply, water, and electricity are all available from the street.

SPACE REQUIREMENTS. A cellar under the entire house is not required. Space, however, should be reserved in cellar for heater, coal supply and kitchen store room.

In the two upper floors, provide Living Room, Dining Room, Kitchen, two Double Bed Rooms, one Single Bed Room, and two Bath Rooms. The dining accommodation may be in combination with the Living Room, or with the Sun Porch, or it may be a Dining Alcove.

A small Storage Space is required. If it is an Attic above the Second Story, access to it shall be provided by a simple stair or by an apparatus similar to the Bessler Movable Stairway.

ACCESSORIES. 1. A fireplace in the Living Room. 2. The Kitchen should contain: Sink, Drain Board, Gas Range, Work Table, Two Chairs, a Pot Closet, a Dish Closet, and a place for Kitchen Linen. Two Wash Trays for Laundry Work are required on the First Floor, either in the Kitchen or in a nearby Alcove. 3. Refrigerator placed within house walls may be in the Alcove with Laundry Trays. 4. Coat Closet on the First Floor. Two Clothes Closets with each Double Bedroom, and one for the Single Bedroom. Minimum depth for clothes closet (inside dimension) 22". Minimum height of hanging space, pole or rod to floor, 5'6". A Broom Closet on the First and Second Floors. A Linen Closet on the Second Floor. A Medicine Cabinet in each Bathroom. 5. Bath Tubs to be at least 5' long.

PORCH. A porch large enough to accommodate comfortably four or five porch chairs is required. It may be enclosed and used as a combination Dining Room—Sun Porch.

ORIENTATION. For the purposes of this contest, it is assumed that the prevailing summer breezes come from the southwest. Competitors are requested to so plan their houses as to secure the maximum of sunshine and summer breezes in the principal rooms.

ARCHITECTURE AND STORY HEIGHTS. The kind of architecture chosen by contestants should be inspired by some worthy architectural precedent and should be suited to American conditions. The following story heights may be used but they should be considered the minimum heights below which it would be inadvisable to go:

Cellar Floor to First Floor—8'.
First Floor to Second Floor—9'.
Second Floor to Ceiling—7'—10" to 8' (clear height).

In the interests of economy, it would be well for contestants to lay out rooms so that floor framing pieces, coming from the market in lengths of even feet, 10'—12'—14', etc., may be used with little cutting and waste.

CUBIC VOLUME. The cubic volume of every design submitted in this competition must not exceed 18,000 cubic feet. For the sake of uniformity the following method of computing the cubic volume should be used by all contestants, as it is the method which will be used by the Jury of Award in checking plans.

The vertical measurement in the cellar starts from the surface of the cellar floor. For that portion of the house below the first floor which is unexcavated, the vertical measurement begins with the level of the bottom of the wall trenches. Porches outside of the house to be cubed and the volume cut in half. Porches under the house to be included for their full volume. Space between the second floor ceiling and the roof to be carefully cubed. In the case of a simple pitched roof, having a gable treatment at two ends, the area of the attic floor should be multiplied by one half the height from the attic floor to the top of the ridge. Roofs having a more complicated shape should be cubed by a process which the designer should describe in a note on the drawing of the section.

DRAWINGS REQUIRED IN THE COMPETITION. Plans of Cellar, First Floor, and Second Floor; elevations of Front and One Side; section from Cellar Floor to Ridge. All the above at a scale of ¼" to the foot.

Perspective drawing made from a quarter scale plan with the point of site 200 feet from the picture plane and a corner of the house lying in that plane.

All drawings shall be presented in black and white with no color at any point. Plans shall have furniture placed with dimensions of rooms labeled. Elevations shall be drawn in line only, with no shadows cast and no rendering of openings. Perspective may be in pencil, in pen and ink, or in wash, but in any case must be in black and white. Trees and shrubs may be shown as background or as helpful garden embellishment. One human figure may be placed in perspective to give scale. For the sake of uniformity, contestants are requested to present all the drawings called for on one sheet, not larger than 24' x 30". Drawings may be presented upon heavy paper, such as Whatman or other standard drawing paper, or they may be made upon white tracing paper. If the latter is preferred, it should be mounted upon heavy cardboard, beaver board, or other form of stiff mount. Drawings should be shipped flat, not rolled.

WRITTEN DESCRIPTION. A descriptive, unsigned article not to exceed six hundred words and suitable for publication in *McCall's Magazine* shall be included with the drawings. This article shall describe the plan, the architecture, the materials to be used, the cubic volume, and the cost at 45 cents per cubic foot.

DRAWINGS UNSIGNED. There shall be no signature or mark of any kind to identify the authorship of any drawing. Instead, each competitor shall enclose his name and address in a plain, sealed envelope and shall deliver this envelope with the drawings when they are delivered or shipped to *McCall's Magazine*. As each package is unwrapped, a number will be placed upon the drawings, the written description, and the plain sealed envelope. The envelopes will all be wrapped up, sealed, and placed in a safe or vault, not to be opened until the Jury of Award shall have reached its decision.

ACTION OF JURY OF AWARD. As soon as possible after the reception of competition drawings, the Jury will render its judgment. There shall be two or more sessions of the Jury on separate days. The Jury shall select the designs which in its judgment are entitled to the first and second prizes and shall also select a certain number of designs for honorable mention.

However, before any envelopes are opened and awards announced, the Jury shall check the cubic volumes of all designs which have been set aside for prizes or mentions and any designs which exceed the volume mentioned as the maximum volume permissible will be declared ineligible.

Immediately after the Jury has reported its awards to *McCall's Magazine*, the names of the prize winners and those awarded honorable mention will be mailed to all contestants.

WORKING DRAWINGS. The winners of first and second prizes shall commence as soon as possible to prepare complete working plans and specifications. The drawings shall consist of a plan of each floor, four elevations, a section showing the entire height of house, and a sheet of details. The details shall be at a scale of ½ of an inch to the foot. All other drawings shall be drawn at a scale of ¼ of an inch to the foot.

In preparing specifications, the architects are requested to follow the standardized form used by the Architects' Small House Service Bureau. In the event that the standard form does not fit all requirements, the architects will be requested to point out wherein these standard specifications can be improved by alteration.

McCall's Magazine reserves the right to publish some of the designs which may be awarded honorable mention by the Jury of Award. In the event that working drawings and specifications of these honorable mention designs are desired, they shall conform to the requirements given herewith and *McCall's Magazine* will pay to each author of such design the sum of $300.00 in consideration of the completion by such author of a set of working plans and specifications. All working plans and specifications, whether produced by author of prize winning designs or by authors of honorable mention designs, must be approved by Miss Marcia Mead, Consulting Architect to *McCall's Magazine*. Working drawings and specifications shall be considered instruments of service and shall remain the property of the architect who produces them.

DATE FOR SUBMITTING DRAWINGS. Each drawing when wrapped ready for shipment or for delivery shall be addressed to Miss Marcia Mead, Consulting Architect to *McCall's Magazine*, 236 West 37th Street, New York, N. Y. In order to give to all contestants the same privilege as to time allowance, it is desired that all drawings delivered by hand be brought to the above mentioned address on Saturday, 31 October, before 12 o'clock noon. Those who intend to ship their drawings by express shall secure an express receipt dated 31 October or earlier, and shall send this receipt by mail to Miss Mead. No drawings will be accepted which are delivered by hand after 31 October, or which have been shipped on a date later than that date.

PUBLICATION OF DESIGNS. While the award of the Jury will take place in the fall of 1925, *McCall's Magazine* will not publish the prize winners until the following spring or until the working plans and specifications shall have been completed, accepted, and are ready to be issued.

PROVIDING THE PUBLIC WITH PLANS. *McCall's Magazine* will act as a distributing center for copies of working drawings and specifications, and, to all inquirers who apply for such information, will offer two complete sets of blue prints and two copies of the specifications for the sum of $30.00. The entire amount of this sum will be paid to the author of such plans and specifications who will, however, be expected to defray the cost of reproducing such copies of plans and specifications.

NOTE: Additional programs may be secured from Miss Mead.

Structural Service Department

LEROY E. KERN, *Technical Secretary*

In connection with the work of the Committee on Structural Service of the American Institute of Architects and in collaboration with other professional societies and organized bodies having the same objective—improvement in building materials and methods and better shelter for humanity in all its manifold vocations and avocations

"Powder-Post" in Buildings

"Powder-post" is a condition of timber in which the wood fibers have been reduced to flour-like dust or powder by the continued boring of insects within the wood; such damage occurs throughout the world and, due to trade, many of the beetles are cosmopolitan in distribution. In the songs and legends of the past, poets have utilized the theme of the "death watch" beetle presaging the death of an inmate of the building in which the sound made by this insect is heard; there has been great popular prejudice against these common "powder-post" beetles. Many a nervous and superstitious patient may have had the end hastened by listening in the silence and solitude of night to this imagined knell of his approaching death. For "death-watch" beetles are common in buildings, both in this country and Europe.

In reality, the adult male beetle produces a ticking or rapping sound by a sharp knocking with its hard, chitinous head against wood; it is a sexual call to a mate, calling for new life and increase, not death! Several ticks are followed by an interval of silence. This weird and distant noise is, of course, most likely to be heard in the still watches of night.

The cynical poet Dean Swift, with great common sense, ridiculed this "old woman's tale" and, in his flowing metre, shows that scalding water not only kills the woodworm but breaks the evil omen!

Recent repairs to the roof of Westminster Hall, England, were necessary to save it from destruction, from weakening of huge timbers, by the gradual powder-posting by death-watch beetles. In this case, the damage had been going on for over 400 years.

Adult of Lyctus powder-post beetle (Fig. 1a)

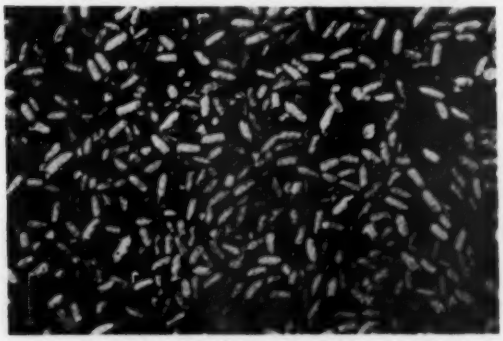
(Below, Fig. 1b)

Egg of Lyctus powder-post beetle laid in pore of ash wood

Pellets of finely digested, excreted wood expelled by powder-post beetle vrilletta sp. These droppings are a warning that woodwork is infested.

"Powder-post" beetle is a more general term to include several large groups, which pulverize wood by their borings in its interior.

To *Lyctus* powder-post beetles can be attributed a large and serious portion of damage to the woodwork of buildings and furniture. These brown beetles are about one-quarter inch in length, slender, and somewhat flattened. (Fig. 1a.) In the spring, they emerge from wood in which the winter has been passed in the grub stage. Having wings, they fly or crawl about to mate and lays eggs in wood—in their old home or elsewhere. Their odd-shaped egg (Fig. 1b) are laid within the pores of the seasoned sapwood (whitewood) of hardwoods. Only wood of this type is attacked, because certain chemical changes occur in the process of seasoning or drying which render the nutritive substances in the wood —such as sugars and starches—especially suitable as food for the grub. The interior or "heartwood" is not damaged. Favored hardwoods are oak, ash, hickory, black walnut,



Pellets of finely digested, excreted wood expelled by the powder-post beetle tricoderma sp.

Ash building lumber infested by cerambycid powder-post beetle neoclytus capraea

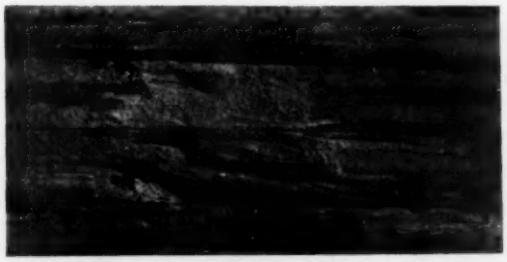
maple, cherry, etc.—the woods most prized by man for his woodworking. Pines and other softwoods are not attacked by *Lyctus*.

Each female deposits many eggs in the pores of wood in the spring. After the grubs hatch, they burrow within the wood and mature next year as adult beetles, eating their way out to the exterior and leaving a small exit hole.

Infestation of wood can be detected by these small holes—the size of a pinhead—and the fine flour-like dust which falls from the wood (Fig. 2). While not much damage is done during the first year, continued reinfestations year by year and the burrows of the grubs completely pulverize the interior wood, leaving a hollow exterior shell.

Prevention of these attacks by Lyctus beetles is very simple! Any treatments which close the pores of the wood will make egg laying impossible. Waxes, varnishes, linseed oil, paint or other fillers are absolute barriers, *provided*, however, that all sapwood portions of interior, backs or surfaces unexposed to view are also so coated. Cabinet work, furniture, flooring, etc., is often attacked by these beetles from the rear—where they are not exposed to human view. In endeavoring by false economy to save a little varnish, paint or filler, the integrity of the whole article may be jeopardized.

Kiln drying lumber or timbers will kill the grubs already



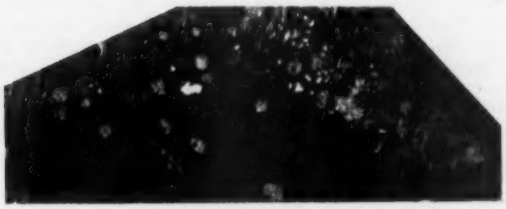
Damage to pine timber in building by the old house borer hylotrupes cajulus, a powder-post beetle which lays eggs under edgings of bark

Damage to hardwood by Lyctus powder-post beetles (Fig. 2)

Softwood or coniferous timber powder-posted by Xyletinus peltatus

Hickory wood powder-posted by Bostrichid powder-post beetle (Xylobiops basilare)

a. Longitudinal section of wood



b. Cross section of wood

within the wood but will not prevent subsequent attack. To kill grubs in wood already in place, thoroughly soak it with a rag or mop saturated with orthodichlorobenzene.

Other types of powder-post beetles (Cerambycidæ) damage both hardwoods and softwoods. Attack can be prevented by using kiln dried lumber and insisting that no boards or timbers are used with even strips of bark on the edges. Winged beetles lay eggs under this bark! Even if the wood is seasoned, the "old house borer" (*Hylotrupes*) will lay eggs under the bark on edges. Strip or trim off this bark and sapwood.

Certain powder-post beetles (*Ptinidæ*) not only attack both softwoods and hardwoods, but also riddle the interior heartwood. Their presence in wood can be detected by the small pellets of finely digested and excreted wood which they expel.

Eggs are laid in cracks (such as seasoning checks), crevices, or loose joints or on timber where there is no varnish or filler. This is the "death watch" type of powder-post beetles, which so badly damaged the roof of Westminster Hall.

Kiln dried lumber or timber is recommended, as well as the use of varnish, fillers, paints or chemical preservatives. Coal tar creosote is the most effective preservative, unless the brown discoloration or odor makes its use objectionable. Impregnate all foundations or hidden timbers with this oil. Where impracticable to use creosote, impregnation with zinc chloride is an effective alternative; such treated wood can be painted, after treatment.

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Waterproofing of Gypsum Block (10a3). (*Technical News Bulletin No.* 94. *Bureau of Standards.*) Gypsum, though satisfactory as a plaster and tile for interior work has not proven satisfactory for exterior construction, the reason being its slight solubility in water. The present use of gypsum block is therefore mainly in the construction of interior partitions. If this material could be so improved as to be more resistant to the weather there would immediately be opened a new market for gypsum block not yet touched. It is probable that if a method of waterproofing gypsum block can be found, the procedure may easily be modified to include such other gypsum products as stucco, mortar, etc. With this in mind an investigation of methods of weatherproofing gypsum has been undertaken by the Bureau.

In attacking this problem three general methods presented themselves. First, covering the set material with some waterproof coating in order to keep the moisture from the gypsum; second, precipitating on the surface an insoluble compound formed by a reaction of some material with the gypsum; and, third, by the addition of an integral waterproofing compound to the gypsum, which when the gypsum has set acts as a water repellent. In the beginning of the investigation many small cylindrical specimens of gypsum were made and treated in one of the ways described above, and then exposed to the weather. At definite intervals these were dried, weighed, and tested for absorption. At the end of one year's exposure, panels were made of the same composition as the small cylinders, which upon examination gave promise of satisfactorily withstanding the weather. These panels were exposed to the weather, and are now examined from time to time.

The first method, covering the set material with a waterproof coating, has so far given very promising results. Waterproof paints, varnishes, shellacs, white-washes, paraffins, waxes, stearic acid, etc., have been used. The paints, varnishes, shellacs, and white-washes were not very satisfactory, but with paraffin, waxes, and stearic acid very good results were obtained.

Effect of Hydrated Lime and Other Powdered Admixtures in Concrete (3b). (*Stuctural Materials Research Laboratory. Lewis Institute. Bulletin No.* 8 *by Duff A. Abrams. Second edition June,* 1925. *Pages* 74. *Size* 6" x 9".) The above paper was originally published in the Proceedings of the A. S. T. M., 1920. Tables and Diagrams have, however, been revised to include 2- and 5-year tests.

This investigation was confined to powdered admixtures which are essentially inert in the presence of water and portland cement, as contrasted with liquids or soluble materials. Most of the tests were made with hydrated lime, but 17 other powders were also used. The effect was studied of admixtures up to 50% of the volume of cement on the compressive and tensile strength, wear, bond and workability of concrete made with sand and pebbles and crushed limestone aggregate of different sizes and gradings, in mixes ranging from 1:2 to 1:9 and a wide range in consistencies. Seven different investigations were made, including more than 20,000 tests at ages of 3 days to 5 years.

The principal conclusions are:

In general the strength of concrete was reduced approximately in proportion to the quantity of admixture. Some exceptions are noted below.

In usual concrete mixtures, each 1% of hydrated lime (in terms of *volume* of cement) reduced to compressive strength 0.5%; in terms of the *weight* of cement the reduction was 1.2%. High calcium and high magnesian limes produced the same effect.

The addition of 1% of the following powdered admixtures in terms of the *volume* of cement *reduced* the strength of 1.4 concrete at 28 days by the following percentages: clay brick 0.08; clay 0.22; whiting, 0.24; sand, 0.37; natural cement, 0.38; limestone, 0.39; lava, 0.40; fluorspar, 0.43; kaolin, 0.47; kieselguhr (celite), 0.48; mica, 1.10; tufa, 0.51; hydrated lime 0.56; ironite, 0.60; yellow ochre, 0.68; pitch, 1.50; gypsum, 4.00. For the same conditions the addition of 1% of portland cement *increased* the strength of concrete about 1%; granulated slag showed an increase of 0.12%.

Rich concrete mixes showed a greater loss in strength due to powdered admixtures than the leaner ones. In lean mixes (1.9 to 1.6) and those in which aggregates were graded too coarse for the quantity of cement used, the strength was little affected or was slightly increased by admixtures up to 50%. The wetter mixes showed a greater loss in strength than the dry, due to the hydrated lime. The effect of admixtures was in general independent of the age of the concrete.

Hydrated lime and other powdered admixtures slightly increased the workability of the leaner mixes (1.9 and 1.6) as measured by the slump and flow tests. Ordinary mixes (1.5 and 1.4) were little affected; richer mixes (1.3 and 1.2) were made less workable. Lime and portland cement (up to 33%) produced essentially the same effect on the "flow" of concrete.

The wear of concrete was not sensibly increased by hydrated lime or other powdered admixtures up to 20% of the volume of cement.

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